State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	**4952**	NAICS Code:	**221320**	SPDES Number:	**NY 0023515**
Discharge Class (CL):		**07**		DEC Number:	**9-0248-00009/00002**
Toxic Class (TX):		**N**		Effective Date (EDP):	**EDP**
Major-Sub Drainage Basin:		**02 - 01**		Expiration Date (ExDP):	**EDP + 5 years**
Water Index Number:	**Pa 53-54-11**	Item No.:	**801 - 53**	Modification Dates (EDPM):	
Compact Area:	**ORSANCO**				

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:	**Village of Cuba**	Attention:	**Mayor, Village of Cuba**		
Street:	**17 East Main Street**				
City:	**Cuba**	State:	**NY**	Zip Code:	**14727**
Email:	**jbarnesmayorvocuba@gmail.com**	Phone:	**(585) 968-9982**		

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL																	
Name:	**Village of Cuba Wastewater Treatment Facility**																
Address / Location:	**Route 408**											County:		**Allegany**			
City:	**Cuba**						State:	**NY**				Zip Code:		**14727**			
Facility Location:		Latitude:	**42**	°	**13**	’	**3**	” N	& Longitude:	**78**	°	**17**	’	**18**	” W		
Primary Outfall No.:	**001**	Latitude:	**42**	°	**12**	’	**57**	” N	& Longitude:	**78**	°	**17**	’	**28**	” W		
Outfall Description:	**Treated Sanitary**	Receiving Water:	**Oil Creek**						Class:	**C**		Standard:		**C**			

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. The co-permittees subject to one or more conditions of this permit are listed on page 2.

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

DISTRIBUTION:
BWP Permit Coordinator (permit.coordinator@dec.ny.gov)
BWP Permit Writer
RWE
RPA
EPA Region II (Region2_NPDES@epa.gov)
NYSEFC (sara.tully@efc.ny.gov)

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

SUMMARY OF ADDITIONAL OUTFALLS

Outfall	Wastewater Description	Outfall Latitude						Outfall Longitude					
003	**Bypass Duplicate Outfall – Post Aeration Tank**	**42**	°	**13**	’	**00**	” N	**78**	°	**17**	’	**19.2**	” W
Receiving Water:	**Griffin Creek**							Class:		**C**			

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 DEC 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 DEC.
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	LIMITATIONS APPLY	RECEIVING WATER	EFFECTIVE	EXPIRING
001	All year unless otherwise noted	Oil Creek	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location Inf.	Location Eff.	
Flow	Monthly Average			0.97	MGD	Continuous	Recorder		X	
BOD_5 June 1st – October 31st	Daily Maximum	19	mg/L	154	lbs/d	2/month	6-hr. Comp.	X	X	(1)
BOD_5 November 1st – May 31st	Monthly Average	30	mg/L	243	lbs/d	2/month	6-hr. Comp.	X	X	(1)
	7 Day Average	45	mg/L	364	lbs/d	2/month	6-hr. Comp.	X	X	(1)
Total Suspended Solids (TSS)	Monthly Average	30	mg/L	243	lbs/d	2/month	6-hr. Comp.	X	X	(1)
	7 Day Average	45	mg/L	364	lbs/d	2/month	6-hr. Comp.	X	X	(1)
Settleable Solids	Daily Maximum	0.3	mL/L			Daily	Grab	X	X	
pH	Range	6.5 to 8.5	SU			Daily	Grab	X	X	
Nitrogen, Ammonia (as N) June 1st – October 31st	Daily Maximum	2.4	Mg/L	19	lbs/d	2/month	6-hr. Comp.		X	
Nitrogen, Ammonia (as N) November 1st – May 31st	Daily Maximum	3.5	Mg/L	28	lbs/d	2/month	6-hr. Comp.		X	
Temperature	Daily Maximum	Monitor	ºF			Daily	Grab	X	X	
Dissolved Oxygen June 1st – October 31st	Daily Minimum	7.0	mg/L			1/week	Grab		X	
Dissolved Oxygen November 1st – May 31st	Daily Minimum	4.0	mg/L			1/week	Grab		X	
Mercury	Daily Maximum	50	ng/L			1/Month	Grab		X	
Total Phosphorus (as P)	Monthly Average	0.5	mg/L			1/week	Grab		X	
Biennial Pollutant Scan						1/Two Years	6-hr. Comp.		X	(4)

EFFLUENT DISINFECTION Required All Year		Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Coliform, Fecal	30-Day Geometric Mean	200	No./ 100 mL			1/week	Grab		X	
Coliform, Fecal	7-Day Geometric Mean	400	No./ 100 mL			1/week	Grab		X	
Chlorine, Total Residual	Daily Maximum	.03	mg/L			1/week	1/Day		X	(2,3)

WHOLE EFFLUENT TOXICITY (WET) TESTING	Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN

WET - Acute Invertebrate	See footnote			0.3	TUc	Quarterly	See footnote		X	(5)
WET - Acute Vertebrate	See footnote			0.3	TUa	Quarterly	See footnote		X	(5)
WET – Chronic Invertebrate	See footnote			1.7	TUa	Quarterly	See footnote		X	(5)
WET – Chronic Vertebrate	See footnote			1.7	TUa	Quarterly	See footnote		X	(5)

FOOTNOTES:

1. Effluent shall not exceed 15% and 15% of influent concentration values for BOD_5 & TSS respectively.

2. Reporting for Total Residual Chlorine is only applicable if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine.

3. Biennial Pollutant Scan: The permittee shall perform effluent sampling every two (2) years for all pollutants identified in the NY-2A Application. Tables A-D. Sampling data shall be collected and maintained by the permittee. Monitoring results shall not be submitted on the DMR. Data shall be submitted with the next submission of the NY-2A form.

4. **Whole Effluent Toxicity (WET) Testing:**
   Testing Requirements – Chronic WET testing is required, but report both the acute and chronic results. Testing shall be performed in accordance with 40 CFR Part 136 and TOGS 1.3.2 unless prior written approval has been obtained from the DEC. The test species shall be Ceriodaphnia dubia (water flea - invertebrate) and Pimephales promelas (fathead minnow - vertebrate). Receiving water collected upstream from the discharge should be used for dilution. All tests conducted should be static-renewal (two 24-hr composite samples with one renewal for Acute tests and three 24-hr composite samples with two renewals for Chronic tests). The appropriate dilution series should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test may be required. WET testing shall be coordinated with the monitoring of chemical and physical parameters limited by this permit so that the resulting analyses are also representative of the sample used for WET testing. The ratio of critical receiving water flow to discharge flow (i.e., dilution ratio) is **1.4:1** for acute, and **1.7:1** for chronic.

   Monitoring Period - WET testing shall be performed quarterly (calendar quarters) during calendar years ending in **1** and **6** and lasting for a period of one full year.

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

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

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

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.

MINI INDUSTRIAL PRETREATMENT PROGRAM SCHEDULE

Deming Electroplating is a Significant Industrial Users of the permittee's municipal sewerage system. Therefore, the permittee shall comply with the following schedule:

Industrial Survey
Within six (6) months of the effective date of this permit, the permittee shall submit Fast Report On Significant Industries forms completed through question 7A, completed Industrial Chemical Survey forms and proposed industrial monitoring for Deming Electroplating and proposed Sewage Treatment Plant (STP) monitoring.

Develop Procedures
Within seven (7) months of the submission of industrial survey results, the permittee shall submit documentation of procedures for obtaining and ensuring compliance with applicable standards. Such procedures shall include requirements and schedules for discharge permits, industrial self-monitoring, compliance monitoring of industries by the permittee, on going STP monitoring and an enforcement program. Such procedures shall be equivalent to procedures described or referenced in the document entitled Introduction to the National Pretreatment Program, USEPA, June, 2011, (https://www.epa.gov/npdes/pubs/pretreatment_program_intro_2011.pdf).

Treatment Plant/Industry Monitoring
Within four (4) months of DEC approval of proposed industrial monitoring and proposed STP monitoring, the permittee shall submit the results of that monitoring and a completed FROSIs for all SIUs.

Credit for Work Already Completed
Any of the above required tasks already completed by the permittee need not be repeated. If the permittee believes that a task or task(s) have been satisfactorily completed, documentation of the completed tasks should be submitted to DEC for approval.

Implement Procedures
Within 9 months of enactment of its sewer use law, the permittee shall implement the procedures proposed under this schedule and approved by DEC. At a minimum, the following activities shall be undertaken by the permittee:

1. Issue permits including limitations, monitoring requirements, and reporting requirements to its significant industrial users.
2. Enforce the local limits set forth in the POTW local sewer use law.
3. Carry out inspections and monitoring of significant industrial users to determine compliance with categorical standards and local limits.
4. Undertake enforcement actions in accordance with DEC approved procedures.

Reporting Requirements
In accordance with the Schedule of Submittals, the permittee shall submit yearly Fast Report On Significant Industries forms (FROSIs) for each SIU to DEC. Every third year, on the same date, the permittee shall submit Industrial Chemical Survey (ICS) forms completed by all SIUs to DEC. At the same time the permittee shall notify the DEC of any proposed significant changes to its implementing procedures or local sewer use law.

All pretreatment reports shall be submitted to the offices listed on the monitoring, recording and reporting page of this permit.

Continuation
Unless noted otherwise, compliance actions required by the pretreatment mini schedule are one-time requirements. The permittee shall comply with the compliance actions to the satisfaction of the Department. When this permit is administratively renewed by NYSDEC letter entitled **"SPDES NOTICE/RENEWAL APPLICATION/PERMIT"**, the permittee is not required to repeat the submissions. The due dates are independent from the effective date of the permit stated in the letter of **"SPDES NOTICE/RENEWAL APPLICATION/PERMIT."**

a) The permittee shall submit a Report of Non-Compliance Event form 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 notifications 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.

b) The permittee shall submit copies of any document required by the above schedule of compliance to the DEC Regional Water Engineer and to the Bureau of Water Permits.

MERCURY MINIMIZATION PROGRAM (MMP) - Type II

1. General - The permittee must develop, implement, and maintain a mercury minimization program (MMP), containing the elements set forth below, to reduce mercury effluent levels with the goal of achieving the WQBEL of 0.7 ng/L.

2. MMP Elements - The MMP must be a written document and must include any necessary drawings or maps of the facility and/or collection system. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP must include the following elements as described in detail below:

   a. Monitoring - Monitoring at Outfall(s) 001 and 003, influent and other locations tributary to compliance points shall be performed using either USEPA Method 1631 or another sufficiently sensitive method, as approved under 40 CFR Part 136[1]. Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate. Monitoring must be coordinated so that the results can be effectively compared between locations.

      Minimum required monitoring is as follows:

      i. Sewage Treatment Plant Influent and Effluent – The permittee must collect samples at the location(s) and frequency as specified in the SPDES permit limitations table.

      ii. *Key Locations* and *Potential Mercury Sources* – The permittee must sample *key locations*, chosen to identify *potential mercury sources*, at least annually. Sampling of discharges from dental facilities in compliance with 6 NYCRR 374.4 is not required.

      iii. Hauled Wastes – The permittee must establish procedures for the acceptance of hauled waste to ensure the hauled waste is not a potential mercury source. Loads which may exceed 500 ng/L,[2] must receive approval from the DEC prior to acceptance.

      iv. Decreased Monitoring Requirements - Facilities with EEQ at or below 12 ng/L are eligible for the following:
         1) Reduced requirements, through a permittee-initiated permit modification
            a) Conduct influent monitoring, sampling semi-annually, in lieu of monitoring within the collection system, such as at *key locations*; and
            b) Conduct effluent compliance sampling semi-annually.
         2) If a facility with reduced requirements reports discharges above 12 ng/L for two of four consecutive effluent samples, the DEC may undertake a Department-initiated modification to remove the allowance of reduced requirements.
         3) Under the decreased permit requirements, the facility must continue to conduct a status report, as applicable in accordance with 2.c of this MMP, to determine if any waste streams have changed.

   b. Control Strategy - The control strategy must contain the following minimum elements:

      i. Pretreatment/Sewer Use Law - The permittee must review pretreatment program requirements and the Sewer Use Law (SUL) to ensure it is up-to-date and enforceable with applicable permit requirements and will support efforts to achieve a dissolved mercury concentration of 0.70 ng/L in the effluent.

      ii. Monitoring and Inventory/Inspections for Outfalls 001 and 003 -
         1) Monitoring shall be performed as described in 2.a above. As mercury sources are found, the permittee must enforce its sewer use law to track down and minimize these sources.
         2) The permittee must inventory and/or inspect users of its system as necessary to support the MMP.
            a) Dental Facilities
               1. The permittee must maintain an inventory of each dental facility.
               2. The permittee must inspect each dental facility at least once every five years to verify

[1] Outfall monitoring must be conducted using the methods specified in Table 8 of *DOW 1.3.10.*
[2] A level of 0.2 mg/L (200,000 ng/L) or more is considered hazardous per 40 CFR Part 261.11. 500 ng/L is used here to alert the permittee that there is an unusual concentration of mercury and that it will need to be managed appropriately.

compliance with the wastewater treatment operation, maintenance, and notification elements of 6 NYCRR 374.4. Alternatively, the permittee may develop and implement an outreach program,[3] which informs users of their responsibilities, and collect the "Amalgam Waste Compliance Report for Dental Dischargers"[4] form, as needed, to satisfy the inspection requirements. The permittee must conduct the outreach program at least once every five years and ensure the "Amalgam Waste Compliance Report for Dental Dischargers" are submitted by new users, as necessary. The outreach program could be supported by a subset of site inspections.

3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)a) above. This file shall be available for review by DEC representatives and copies shall be provided upon request.

b) Other *potential mercury sources*

1. The permittee must maintain an inventory of other *potential mercury sources.*
2. The permittee must inspect other *potential mercury sources* once every five years. Alternatively, the permittee may develop and implement an outreach program which informs users of their responsibilities as *potential mercury sources.* The permittee must conduct the outreach program at least once every five years. The outreach program should be supported by a subset of site inspections.
3. A file shall be maintained containing documentation demonstrating compliance with 2.b.ii.2)b) above. This file shall be available for review by DEC representatives and copies shall be provided upon request.

iii. Systems with CSO & Type II SSO Outfalls – Permittees must prioritize *potential mercury sources* upstream of CSOs and Type II SSOs for mercury reduction activities and/or controlled-release discharge.

iv. Equipment and Materials – Equipment and materials (e.g., thermometers, thermostats) used by the permittee, which may contain mercury, must be evaluated by the permittee. As equipment and materials containing mercury are updated/replaced, the permittee must use mercury-free alternatives, if possible.

v. Bulk Chemical Evaluation – For chemicals, used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain a manufacturer's certificate of analysis, a chemical analysis performed by a certified laboratory, and/or a notarized affidavit which describes the substances' mercury concentration and the detection limit achieved. If possible, the permittee must only use bulk chemicals utilized in the wastewater treatment process which contain <10 ppb mercury.

c. **Status Report -** An annual status report must be developed and maintained on site, in accordance with the Schedule of Additional Submittals, summarizing:

i. All MMP monitoring results for Outfall(s) 001 for the previous reporting period;
ii. A list of known and *potential mercury sources* for Outfall(s) 001
   1) If the permittee meets the criteria for MMP Type IV, the permittee must notify the DEC for a permittee-initiated modification;
iii. All actions undertaken, pursuant to the control strategy, during the previous reporting period;
iv. Actions planned, pursuant to the control strategy, for the upcoming reporting period; and
v. Progress towards achieving a dissolved mercury concentration of 0.70 ng/L in the effluent (e.g., summarizing reductions in effluent concentrations as a result of the control strategy implementation and/or installation/modification of a treatment system).

The permittee must maintain a file with all MMP documentation. The file must be available for review by Department representatives and copies must be provided upon request in accordance with 6 NYCRR 750-2.1(i) and 750-2.5(c)(4).

3. MMP Modification - The MMP must be modified whenever:
   a. Changes at the facility, or within the collection system, increase the potential for mercury discharges;
   b. Effluent discharges exceed the current permit limitation(s); or
   c. A letter from the DEC identifies inadequacies in the MMP.

[3] For example, the outreach program could include education about sources of mercury and what to do if a mercury source is found.
[4] The form, "Amalgam Waste Compliance Report for Dental Dischargers," can be found here: https://www.dec.ny.gov/docs/water_pdf/dentalform.pdf

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

DEFINITIONS:

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

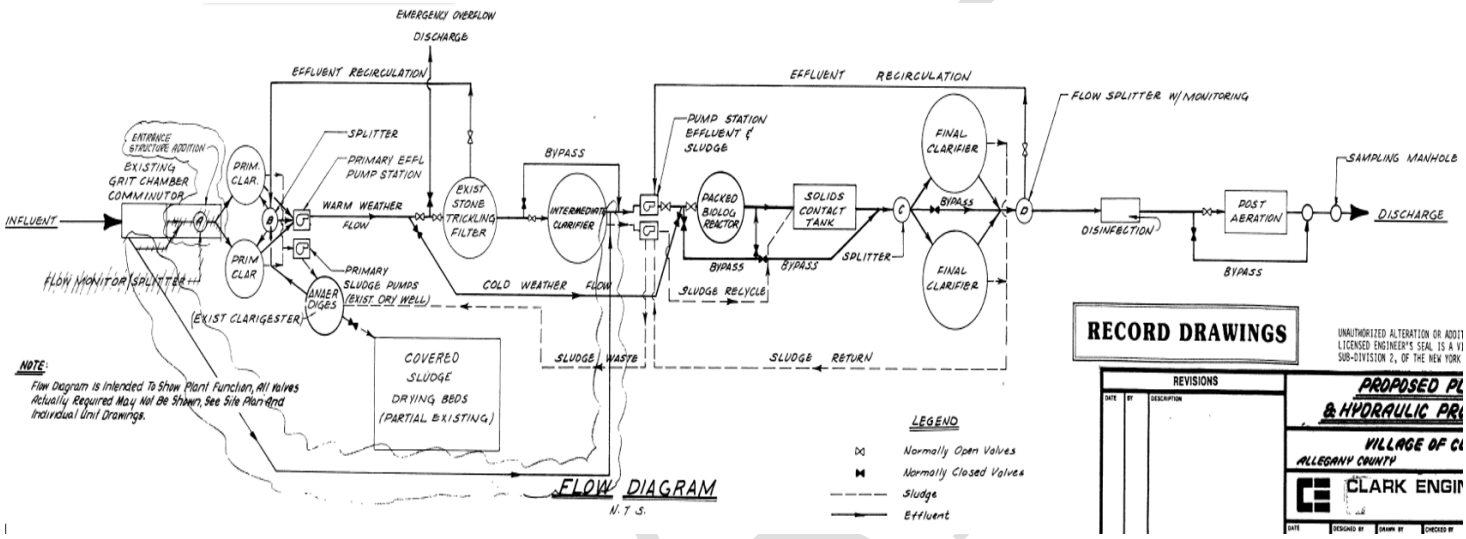
Potential mercury source – a source identified by the permittee that may reasonably be expected to have total mercury contained in the discharge. Some potential mercury sources include switches, fluorescent lightbulbs, cleaners, degreasers, thermometers, batteries, hauled wastes, universities, hospitals,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

MONITORING LOCATIONS

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

Influent (X) : Influent Sampling Location (headworks)

Effluent (Y) 001 : Effluent Sampling Location (Post Aeration Tank)



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 I 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	6 NYCRR 750-2.5, 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)
9.	Additional conditions applicable to a POTW	6 NYCRR 750-2.9

F. Planned Changes

1. The permittee shall give notice to the DEC as soon as possible of planned physical alterations or additions to the permitted facility when:

   a. The alteration or addition to the permitted facility may meet any of the criteria for determining whether facility is a new source in 40 CFR §122.29(b); or
   b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject either to effluent limitations in the permit, or to notification requirements under 40 CFR §122.42(a)(1); or
   c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

In addition to the DEC, the permittee shall submit a copy of this notice to the United States Environmental Protection Agency at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866.

GENERAL REQUIREMENTS (continued)

2. Notification Requirement for POTWs
   All POTWs shall provide adequate notice to the Department and the USEPA of the following:

   a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; or
   b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
   c. For the purposes of this paragraph, adequate notice shall include information on:
      i. the quality and quantity of effluent introduced into the POTW, and
      ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

   POTWs shall submit a copy of this notice to the United States Environmental Protection Agency, at the following address:
   U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866

G. Sludge Management
   The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

H. 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 DEC, 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.

I. Water Treatment Chemicals (WTCs)
   New or increased use and discharge of a WTC requires prior DEC review and authorization. At a minimum, the permittee must notify the DEC in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The DEC 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 DEC. 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 in writing by the DEC.
   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 that 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 DEC'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 DEC 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 DEC's website.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by DEC. Instructions on the use of NetDMR can be found at https://www.dec.ny.gov/chemical/8461.html. **Hardcopy paper DMRs will only be accepted if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

Attach the monthly "Wastewater Facility Operation Report" (form 92-15-7) and any required DMR attachments electronically to the DMR or with the hardcopy submittal.

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

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

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

Department of Environmental Conservation
Regional Water Engineer, Region 9
700 Delaware Avenue, Buffalo, NY 14209 Phone: (716) 851-7070

D. Annual SPDES Monitoring Reports: An annual report shall be submitted to DEC 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 DEC's website.

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

Department of Environmental Conservation
Regional Water Engineer, Region Region 9
700 Delaware Avenue, Buffalo, NY 14209 Phone: (716) 851-7070

E. Bypass and Sewage Pollutant Right to Know Reporting: In accordance with the Sewage Pollutant Right to Know Act (ECL § 17-0826-a), Publicly Owned Treatment Works (POTWs) are required to notify DEC and Department of Health within two hours of discovery of an untreated or partially treated sewage discharge and to notify the public and adjoining municipalities within four hours of discovery. Information regarding reporting and other requirements of this program may be found on the DEC's website. In addition, POTWs are required to provide a five-day incident report and supplemental information to the DEC in accordance with Part 750-2.7(d) by utilizing the Division of Water Report of Noncompliance Event form unless waived by DEC on a case-by-case basis.

F. 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:

SCHEDULE OF ADDITIONAL SUBMITTALS		
Outfalls	Required Action	Due Date
003	NOTIFICATION OF START-UP – BYPASS INSTALLATION AT OUTFALL (003) The permittee shall submit a 30-day notice prior to the bypass start-up installation.	4 years and 6 months after Effected Date of Permit (EDP)
001	BIENNIAL POLLUTANT SCAN - The permittee shall implement an ongoing monitoring program and perform effluent sampling every two years as specified in Footnote 6.	Retain and submit with next NY-2 Application
001	WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM 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 DMR.	After January 28th, then annually.
001	MERCURY MINIMIZATION PROGRAM The permittee must complete and maintain onsite an annual mercury minimization status report in accordance with the requirements of this permit.	***Maintained Onsite*** 1 year after Effective Date of Permit (EDP), annually thereafter
001	EMERGING CONTAMINANT MONITORING Short term monitoring shall be conducted to evaluate the influent and effluent discharge levels for PFOA, PFOS, and/or 1,4-D contaminants.	Monthly for at least three (3) consecutive months.
001	WHOLE EFFLUENT TOXICITY (WET) TESTING 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.	Within 60 days following the end of each monitoring period

Unless noted otherwise, the above actions are one-time requirements. The permittee shall submit the results of the above actions to the satisfaction of the Department. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT", the permittee is not required to repeat the above submittal(s), unless noted otherwise. The above due dates are independent from the effective date of the permit stated in the letter of "SPDES NOTICE/RENEWAL APPLICATION/PERMIT."

G. 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.

H. 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.

I. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

J. 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.

K. 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
Village of Cuba
Village of Cuba Wastewater Treatment Plant
NY0023515

Contents

Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) permittee-initiated permit modification has been drafted for the Village of Cuba Wastewater Treatment Plant. The changes to the permit are summarized below:

Added

- Bypass Outfall (003) for hydraulic surcharge during 25-year flood elevation
- Mercury limits for 50 ng\L
- WET action levels of 1.3 TUc and 1.0 TUa
- Seasonal Ammonia limits
- Winter DO limits
- Phosphorus limits
- Biennial Pollutant Scan

Updated

- Permit format, definitions, and general conditions
- Summer DO limits

Removed

- Schedule of compliance met by permittee
- Emergency Bypass Outfall (002)
- UOD limit
- CBOD and TKN monitoring

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

12/1/2014 The last full technical review was performed and the SPDES permit became effective and has an expiration date of 11/30/2018. The 2014 modified permit, along with all subsequent modifications,has formed the basis of this permit.

The permit was administratively renewed in 12/1/2018 and again in 12/1/2023. The current permit administrative renewal is effective until 11/30/2028.

12/1/2014 Permit was modified to include pH limitation, mercury minimization requirement, mini pretreatment program requirement and compliance schedule for hydraulic capacity.

6/10/2019 The Village of Cuba submitted a request to modify the permit and add a duplicate Outfall 003. The new outfall would be triggered during rain events which would elevate the stream levels and discharge effluent that would back up into the treatment plant. The new outfall 003 would also eliminate the use of bypass Outfall 002, which was designed to discharge partially treated effluent to Griffin Creek during a hydraulic overloading in the system.

6/12/2019 The Village of Cuba submitted a NY-2A permit application.

12/6/2022 DEC issued a Request for Information (RFI) to modify and renew the SPDES permit due to the Village of Cuba submission of a request to modify the permit to construct a duplicate Outfall (003) to prevent back-up into the treatment plant and eliminate the use of bypass Outfall (002).

Please see the Notice of Complete Application, published in the Environmental Notice Bulletin and newspapers, contains information on the public notice process.

Facility Information

This facility is a publicly owned treatment works that receives flow from domestic and industrial users, with effluent consisting of fully treated sanitary that discharges at the main Outfall (001) and partially treated effluent at the twin bypass Outfall (002), which is no longer used. The collection system consists of separate sewers. The facility accepts flow from a significant industrial user (SIU).

The current treatment plant was constructed prior to 1970 which provides secondary treatment for a design flow of 0.97 MGD. A major plant upgrade was completed in 1987, which added several new treatment processes to the existing stone trickling filter system. Additions and upgrades to several plant components were completed under a 2010 rehabilitation project, but the majority of remaining component remain as originally constructed. The majority of the 48,000 linear feet of sewer main lining was completed in 2010. This study included an evaluation of alternative improvements to the collection system to identify sources of Inflow and Infiltration and provide energy saving opportunities with increased efficiency and reliability.

Flow from the Village's collection system enters the treatment facility from the manhole located outside the WWTF site. Flow enters the facility through the headwords structure, then is conveyed to the two (2) primary clarifiers via a flow splitter box downstream of the headworks where a pair of sluice gates can isolate downstream clarifier; flow is typically shared evenly between both primary clarifiers. Primary effluent flows by gravity to a triplex primary effluent pump station, where it is pumped to the stone trickling filter.

The stone trickling filter provides biological treatment via an attached-growth process, sending effluent to an intermediate clarifier by gravity. Clarified trickling filter effluent is collected in the wet well of the recirculation pump station, where it is pumped to the biological filter tower for further biological treatment via another attached-growth process. Filter tower effluent flows by gravity to solids contact tank, where mixed liquor is supplied with oxygen to further reduce organics. Effluent from the Solids Contact Tank flows by gravity to the final clarifiers. A distribution box downstream of the final clarifiers can direct clarified effluent to the disinfection process and can also direct settled solids to the recirculation pump station for transfer to solids handling. An ultraviolet disinfection system treats clarified effluent for reduction of fecal coliform prior to post-aeration, where air is provided to boost dissolved oxygen content before discharge to the receiving stream.

System components:

- Preliminary Treatment: Screening/Grit Removal
- Primary Treatment: 2 Primary Clarifiers
- Secondary Treatment: Trickling Filter/Intermediate Clarifier/Bio Tower/Activated Sludge tank/ two (2) Final Clarifiers/Aerobic Digester

- Tertiary Treatment: Post Aeration Tank
- Disinfection: UV

Sludge is digested anaerobically, pressed, and hauled to a landfill. The primary outfall (Outfall 001) is located in Oil Creek and consist of 15-inch PVC pipe partially submerged and becomes fully submerged and surcharged under high flow conditions.

The facility is planning the following upgrades/improvements:

- Rehabilitate its Collection System to reduce Inflow & Infiltration flows
- Construct Infrastructure for (duplicate outfall) permanent Bypass Pumping
- Refurbish existing headworks to replace comminutor and bar screens
- Install sludge dewatering belt press

The facility accepts wastewater from the following municipalities:

Municipality	POSS # or SPDES #	Collection System
Village of Cuba	NY0023515	Separate
Town of Cuba, Lake District	NYS900072	Separate

The facility accepts wastewater from the following significant industrial users (SIUs):

Significant Industrial User (SIU)	SIC Code	Categorical Reference (if applicable to 40 CFR)
Deming Electro Plating	3471	413

Site Overview

Enforcement History

A review of the facility's enforcement history from 4/8/2019 to 4/8/2024 indicated no violations for this period. However, department records indicated that a Notice of Violation was issued by the department on October 23, 2018, due to failure to meet Schedule of Compliance requirements

for non-submission of a Hydraulic Report. This was submitted later resulting in the design of the proposed Duplicate-Bypass Outfall (003), which a Permittee Initiated Modification was requested. The requirements were met and Outfall 002 is being removed from the permit.

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

Existing Effluent Quality

The Pollutant Summary Table presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from Discharge Monitoring Reports for the period 1/1/2021 to 1/31/2024.

Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	4952	Treated Sanitary Sewage	Oil Creek, Class C
002	4952	Treated Sanitary Sewage	Griffin Creek, Class C
		Former Outfall 002- Removing from Permit	

The facility proposes to discharge via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
003	4952	Treated Sanitary Sewage	Griffin Creek, Class C

Reach Description: The confluence of Oil and Griffin creek is located downstream where the existing Outfall (001) is located. No change in classification was determined between streams.

The Pa 53-54-11-6 segment (PWL No. 0201-0061) is not listed on the 2018 New York State Section 303(d) List of Impaired/TMDL Waters, and therefore, there are no applicable waste load allocations (WLAs) for this discharge.

Critical Receiving Water Data & Mixing Zone

The Village of Cuba WTP discharges to the Oil Creek, which is part of the Allegheny River Basin. No representative gauges were identified, and therefore low-flow statistics within the USGS StreamStats program (https://streamstats.usgs.gov/ss/) was used. The USGS developed the "Low-Flow, Base-Flow, and Mean-Flow Regression Equations for Pennsylvania Streams[1]". Using the USGS Report Low Flow Region 3, drainage area (26.3 square miles), mean basin elevation (1848 feet), and mean annual precipitation (39 inches), the following low flows were determined.

[1] Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Estimated 7Q10 (CFS): 1.05
Estimated 30Q10 (CFS): 1.43
Approximated 1Q10 (CFS): 0.525 (1/2 of 7Q10 per TOGS 1.3.1)

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

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	1.4:1	1.7:1	2.0:1	TOGS 1.3.1

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

Permit Requirements

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

USEPA Effluent Limitation Guidelines (ELGs) Applicable to Facility

Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT), Best Available Technology Economically Achievable (BAT), and New Source Performance Standards (NSPS) limitations are based on Effluent Limitation Guidelines developed by USEPA for specific industries[2]. For this facility there are no promulgated effluent guidelines. Appendix Link

Whole Effluent Toxicity (WET) Testing

The requirement for WET testing is new. No previous WET data was available to perform a reasonable potential analysis. Consistent with TOGS 1.3.2, given the dilution available and location outside of the Great Lakes basin, the permit requires chronic WET testing. WET testing action levels of 1.0 TUa and 1.3 TUc have been included in the permit for each species. The chronic action levels represent the chronic dilution ratio. Samples will be collected quarterly for a period of one (1) calendar year starting 2026, then every 5 years after.

Anti-backsliding

Effluent limitations for UOD are being discontinued because the new permit includes new limits for dissolved oxygen and ammonia (as N), which provides a more stringent limiting value than UOD. Backsliding is allowed for UOD under 6NYCRR Part 750-1.10(C)(1), “material and substantial alterations or additions to the permitted facility occurred after permit issuance, which justify the application of a less stringent effluent limitation”.
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

[2] As promulgated under 40 CFR Parts 405 - 471

Bulletin contains information on the State Environmental Quality Review (SEQR)[3] determination. Appendix Link

Discharge Notification Act Requirements

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

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

Mercury[4]

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

The facility is located outside the Great Lakes basin, has a mercury source base on sampling analysis, is a (07) municipal facility that has a design flow less than 1 MGD; therefore, the permit includes requirements for the implementation of MMP Type II.

Based on one (1) data point of 24.1 ng/L collected as part of the application, the facility is expected to meet the new daily max permit limit of 50 ng/L (with monthly sampling frequency). The limit represents the general level currently achievable (GLCA). The data collected will be used to establish an additional 12-month rolling average effluent limit during the next permit review.

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

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

Biennial Pollutant Scan

Three effluent samples for applicable parameters must be submitted with an NY-2A Application[5]. The permit includes a requirement to perform biennial sampling (once every two years) of the WWTP effluent for the parameters in the NY-2A Application, Tables A – D. This requirement ensures the data is representative of effluent conditions over the permit term and will be available for the next application submittal and permit review. This requirement is new.

Mini Industrial Pretreatment Program

The permittee is required to continue implementation of a Mini-Pretreatment Program because it serves Significant Industrial Users (SIUs). The program requires implementation of an industrial user compliance program, submission of user information, modification of local sewer use law (if necessary), and periodic reporting. Appendix Link

Emerging Contaminant Monitoring

Emerging Contaminants, such as Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), and 1,4-Dioxane (1,4-D), have been used in a wide variety of consumer and industrial product as well as in manufacturing processes for decades. These contaminants do not break down easily, therefore their presence in wastewater can remain a concern for years following their

[3] As prescribed by 6 NYCRR Part 617
[4] In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.
[5] Pursuant to 40 CFR 122.21(j)(4)(vi).

discontinued use. As the science surrounding these contaminants is still evolving, additional monitoring is needed to better understand potential sources and background levels. For more information on emerging contaminants, please see the DEC Division of Water web page: https://www.dec.ny.gov/chemical/127939.html.

Pursuant to 6 NYCRR Part 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 POTWs 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):

- Emerging Contaminants Short Term Monitoring
- Annual Water Treatment Chemical (WTC) forms
- Biennial pollutant scan
- Mercury Minimization Annual Status Report
- Quarterly Wet Testing Results

OUTFALL AND RECEIVING WATER SUMMARY TABLE

Outfall	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/l)	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (MGD)	Dilution Ratio		
												A(A)	A(C)	HEW
001	42° 12' 57" N	-78° 17' 28" W	Oil Creek	C	Pa-53-54-11 PWL: 0201-0057	02/01	93.1[6]	0.34	0.68	0.92	0.97	1.4:1	1.7:1	2.0:1

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage													
		Type of Treatment: Grit Removal, Primary Clarification, Trickling Filter, Activated Sludge, Final Clarifier, Aeration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# 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: Existing discharge data from 1/1/2021 to 1/31/2024 was obtained from Discharge Monitoring Reports . All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.															
Flow Rate	MGD	Monthly Avg	0.97	0.53 Actual Average	60	**0.97**	Design Flow	Narrative: No alterations that will impair the waters for their best usages.					703.2	-	Design Flow
	Consistent with 40CFR Part 133.102 and TOGS 1.3.3, a monthly average flow limitation equal to the average daily design capacity of the treatment plant is specified.														
pH	SU	Minimum	6.5	7.3 Actual Min	60	**6.5**	40 CFR 133.102	7.26[8]	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	TBEL
		Maximum	8.5	7.7 Actual Max	60	**8.5**									
	Consistent with TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given the available dilution, an effluent limitation equal to the TBEL is protective of the WQS.														

[6] Ambient hardness was calculated from RIBs station 02-OIL-0.3, located ~6.5 miles, using the average of the 5 samples collected from 2002.

[7] Existing Effluent Quality: Unless otherwise stated, 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)

[8] Ambient pH calculated from RIBs station 02-OIL-0.3, located ~6.5 miles, using the 80th percentile of the 5 samples collected from 2002.

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage													
		Type of Treatment: Grit Removal, Primary Clarification, Trickling Filter, Activated Sludge, Final Clarifier, Aeration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Temperature	°F	Daily Max	Monitor	89 Actual Max	60	**Monitor**	750-1.13 Monitor	-	The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition				704.2	-	-
	Consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions. This requirement is continued from the previous permit.														
Dissolved Oxygen (DO)	mg/L	Daily Min	7.0	8.0	25	**-**	-	-	4.02 Critical Point	4.0 mg/L (703.3)		**7.0**	703.3	-	WQBEL
SUMMER 6/1 – 10/31	The downstream DO concentration was modeled using the Streeter-Phelps equations and the following inputs: Effluent DO = 7.0 mg/l Effluent UOD = 40 mg/L (WQ Model), Effluent BOD_5 = 19.0 mg/L (WQ Model), Effluent NOD = 11 mg/L (WQ Model). Reach Description: The model starts at the Village of Cuba WWTP and flows 1-mile downstream Oil Creek to the confluence with Cuba Lake Outfall where additional flow from the lake is account for. The model then continues to flow down Oil Creek ~6.4 miles until the confluence with Ischua Creek which introduces a substantial amount of flow enough to end the model.														
Dissolved Oxygen (DO)	mg/L	Daily Min	7.0	8.0	25	**-**	-	-	4.0 Critical Point	4.0 mg/L (703.3)		**4.0**	703.3	-	WQBEL
WINTER 11/1 - 5/31	The downstream DO concentration was modeled using the Streeter-Phelps equations and the following inputs: Effluent DO = 4.0 mg/l Effluent UOD = 61 mg/L (WQ Model), Effluent BOD_5 = 30 mg/L (WQ Model), Effluent NOD = 16 mg/L (WQ Model). Reach Description: The model starts at the Village of Cuba WWTP and flows 1-mile downstream Oil Creek to the confluence with Cuba Lake Outfall where additional flow from the lake is account for. The model then continues to flow down Oil Creek ~6.4 miles until the confluence with Ischua Creek which introduces a substantial amount of flow enough to end the model.														
5-day Biochemical	mg/L	Daily Max						_	DO=4.0 mg/L (Surrogate Standard) 703.3			**19**	703.3	-	WQBEL
Oxygen Demand	lbs/d	Daily Max										**154**			
(BOD_5)	% Rem	Minimum				**85**	40 CFR Part 133.102					-			
Summer 6/1-10/31	Refer to Summer DO limit. BOD_5 limit will control $CBOD_5$ and UOD of previous permit therefore $CBOD_5$ and UOD limits not required going forward.														

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage													
		Type of Treatment: Grit Removal, Primary Clarification, Trickling Filter, Activated Sludge, Final Clarifier, Aeration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
5-day	mg/L	Monthly Avg	30	6.6	35 36 /0	30	40 CFR 133.102	-	DO=4.0 mg/L (Surrogate Standard) 703.3			**30**	703.3	-	TBEL
Biochemical		7 Day Avg	45	14	35	45	40 CFR 133.102					**45**			
Oxygen	lbs/d	Monthly Avg	243	40	35	243	-					**243**			
Demand		7 Day Avg	364	98	35	364	-					**364**			
(BOD_5)	% Rem	Minimum	85	98	35	**85**	40 CFR 133.102					-			
WINTER 11/1-5/31	Consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. See justification for Dissolved Oxygen.														
Total	mg/L	Monthly Avg	30	5.8	60/0	**30**	40 CFR 133.102	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				703.2	-	TBEL
Suspended		7 Day Avg	45	9.7	60	**45**	40 CFR 133.102								
Solids (TSS)	lbs/d	Monthly Avg	243	35	60	**243**	-								
		7 Day Avg	364	79	60	**364**	-								
	% Rem	Minimum	85	102	60	**85**	40 CFR 133.102								
	Consistent with 40 CFR Part 133.102 and TOGS 1.3.3 for POTWs, TBELs reflect secondary treatment standards. Given the available dilution, an effluent limitation equal to the TBEL, and consistent with TOGS 1.3.3, is protective of water quality standards.														

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage														
		Type of Treatment: Grit Removal, Primary Clarification, Trickling Filter, Activated Sludge, Final Clarifier, Aeration														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# 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		
Settleable Solids	mL/L	Daily Max	0.3	0.26	0 /36	**0.3**	TOGS 1.3.3	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages				703.2	-	TBEL
	Consistent with TOGS 1.3.3, the effluent limitation is equal to the TBEL of 0.3 mL/L for POTWs providing secondary treatment without filtration. Given that adequate dilution is available the TBEL is protective of WQS.														
Nitrogen, Ammonia (as N) SUMMER 6/1 – 10/31	mg/L	Daily Max	-	-	-	**-**	-	0.082	-	1.24	A(C)	**2.4**	703.5	-	WQBEL
	lbs/d		-	-	-	**-**	-					**19.4**			
	The WQS for Ammonia was determined from TOGS 1.1.1 from a summer pH of 7.5 and a temperature of 25 and the ambient background Ammonia of 0.082 mg/L as per TOGS 1.3.1 D. The pH and temperature of the receiving waterbody were default values and consistent with TOGS 1.3.1E.														
Nitrogen, Ammonia (as N) WINTER 11/1-5/31	mg/L	Daily Max	-	-	-	**-**	-	0.082	-	1.81	A(C)	**3.5**	703.5	-	WQBEL
	lbs/d		-	-	-	**-**	-					**28.3**			
	The WQS for Ammonia was determined from TOGS 1.1.1 from a winter pH of 7.5 and a temperature of 10 and the ambient background Ammonia of 0.082 mg/L as per TOGS 1.3.1 D. The pH and temperature of the receiving waterbody were default values and consistent with TOGS 1.3.1E.														
Mercury	ng/L	Daily Max	-	24.1	1		-	-	-	0.7	H(FC)	**50**	GLCA	-	DOW 1.3.10
	See Mercury section of this fact sheet.														
Coliform, Fecal	#/100 ml	30d Geo Mean	200	31.94	61/0	**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	835.26	61/0	**400**	TOGS 1.3.3	-							

Outfall #	001	**Description of Wastewater:** Treated Sanitary Sewage														
		Type of Treatment: Grit Removal, Primary Clarification, Trickling Filter, Activated Sludge, Final Clarifier, Aeration														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[7]	# 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		
	Consistent with TOGS 1.3.3, effluent disinfection is required year-round due to the class of the receiving waterbody. Fecal coliform effluent limitations equal to the TBEL are specified.														
Total Residual	mg/L	Daily Max	-	-	-	2.0	TOGS 1.3.3	-	-	0.005	A(C)	0.0085	703.5	**0.03**	ML
Chlorine (TRC)	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.														
Total Phosphorus	mg/L	Monthly Avg	-	-	-/-	**0.5**	TOGS 1.3.6	-	None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.				703.2	-	TBEL
	The facility is located upstream of Allegheny River/Reservoir which is impaired for phosphorus and this facility is contributing towards the impairment. The facility has a flow greater than 50,000 gpd therefore a phosphorus limit of 0.50 mg/L is recommended as per TOGS 1.3.6 to be protective.														
Additional Pollutants Detected															
WET Testing	Tu	Acute	-	-	-	-	-	Unknown			A(A)	**0.3**	TOGS 1.3.2	-	Action Level
	Ta	Chronic	-	-	-	-	-				A(C)	**1.7**			
	As the facility has industrial discharger (Deming Electro Plating) WET Testing should be required in the permit going forward. As per TOGS 1.3.2 *"Waste treatment plants which exceed a discharge of 1 MGD. Facilities of less than 1MGD may be required to test. Municipalities which are managing industrial waste pretreatment programs should be considered for toxicity testing monitoring requirements. The number and type of industrial discharges to the municipal system should be reviewed in making a final toxicity testing monitoring determination. Effluent toxicity testing at municipal facilities should be performed on wastewater prior to disinfection practices using chlorine."*														

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

Impaired Waters

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

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

Interstate Water Pollution Control Agencies

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

Existing Effluent Quality

The existing effluent quality is determined from a statistical evaluation of effluent data in accordance with TOGS 1.2.1 and the USEPA Office of Water, Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E (TSD). The existing effluent quality is equal to the 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 existing permit, the previous effluent limitations form the basis for the next permit. Existing effluent quality is evaluated against the existing effluent limitations to determine if these should be continued, revised, or deleted. Generally, existing limitations are continued unless there are changed conditions at the facility, the facility demonstrates an ability to meet more stringent limitations, or in response to updated regulatory requirements. Pollutant monitoring data is also reviewed to determine the presence of additional contaminants that should be included in the permit based on a reasonable potential analysis to cause or contribute to a water quality standards violation.

Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(*l*) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this fact sheet. Consistent with current case law[9] and USEPA interpretation[10] 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.

[9] American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)
[10] U.S. EPA, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; 65 Fed. Reg. 31682, 31704 (May 18, 2000); Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20802, 20837 & 20981 (April 16, 1993)

Antidegradation Policy

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

Effluent Limitations

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

Technology-based Effluent Limitations (TBELs) for Industrial Facilities

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

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 DEC considers a mixing zone analysis, critical flows, and reasonable potential analysis when developing a WQBEL.

Mixing Zone Analyses

In accordance with TOGS 1.3.1., the DEC may perform additional analysis of the mixing condition between the effluent and the receiving waterbody. Mixing zone analyses using plume dispersion modeling are conducted in accordance with the following:
"EPA Technical Support Document for Water Quality-Based Toxics Control" (March 1991); EPA Region VIII's "Mixing Zones and Dilution Policy" (December 1994); 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 x 7Q10 to be equivalent to the 30Q10. The 7Q10 or 30Q10 flow is used with the critical effluent flow to calculate the dilution ratio. The critical effluent flow can be the maximum daily flow reported on the permit application, the maximum of the monthly average flows from discharge monitoring reports for the past three years, or the facility design flow. When more than one applicable standard exists for aquatic or human health protection for a specific pollutant, a reasonable potential analysis is conducted for each applicable standard and corresponding critical flow to ensure effluent limitations are sufficiently stringent to ensure all applicable water quality standards are met as required by 40 CFR 122.44(d)(1)(i). For brevity, the pollutant summary table reports the results of the most conservative scenario.

Reasonable Potential Analysis (RPA)

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

1) identify the pollutants present in the discharge(s) based upon existing data, sampling data collected by the permittee as part of the permit application or a short-term high intensity monitoring program, or data gathered by the DEC;

2) identify water quality criteria applicable to these pollutants;

3) determine if WQBELs are necessary (i.e. reasonable potential analysis (RPA)). The RPA will utilize the procedure outlined in Chapter 3.3.2 of EPA's Technical Support Document (TSD). As outlined in the TSD, for parameters with limited effluent data the RPA may include multipliers to account for effluent variability; and,

4) calculate WQBELs (if necessary). Factors considered in calculating WQBELs include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources.

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

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

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

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(WS) 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.

For groundwater discharges, monitoring of downstream wells may be included to demonstrate compliance with ambient groundwater quality standards. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required.

Requirements for Combined Sewer Overflows (CSOs)

Pollution from combined sewer overflows is controlled with implementation of SPDES permit conditions in accordance with the Division of Water CSO Control strategy (TOGS 1.6.3) and the USEPA CSO Control Policy issued April 11, 1994.

CWA Section 402(q) requires that each permit for a discharge from a municipal combined storm and sanitary sewer shall conform to EPA's Combined Sewer Overflow Control Policy.[1] The CSO Control Policy identifies specific requirements for Phase I and Phase II permits. Phase I permits must include requirements for the

[1] Available at https://www.epa.gov/sites/production/files/2015-10/documents/owm0111.pdf

implementation of the Nine Minimum Controls (NMCs) and development of the Long-Term CSO Control Plan (LTCP).

The 15 CSO Best Management Practices (BMPs) required by NYS under TOGS 1.6.2 are equivalent to the "Nine Minimum Control Measures" required under the USEPA National Combined Sewer Overflow policy (33 USC section 1342(q)). BMPs are technology-based requirements developed in accordance with best professional judgement. These are largely non-structural measures which are designed to maximize pollutant capture and removal from the combined sewer system and the POTW as a whole.

Phase II permits must include requirements to implement the technology-based controls including the NMCs determined on a BPJ basis, as well as requirements which ensure that the selected CSO controls are implemented, operated, and maintained as described in the long-term CSO control plan (LTCP). These requirements are critical to meeting the objectives of the Policy, including to bring all CSO discharge points into compliance with the technology-based and water quality-based requirements of the CWA, and to minimize the water quality, aquatic biota, and human health impacts from CSOs.

Additionally, the 1994 CSO Control Policy requires permits include a requirement for CSO communities who have developed an approved LTCP to reassess overflows to sensitive areas in those cases where elimination or relocation of the overflows is not physically possible and economically achievable. The reassessment should be based on consideration of new or improved techniques to eliminate or relocate overflows or changed circumstance that influence economic achievability.

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

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

Schedules of Compliance

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

Schedule(s) of Additional Submittals

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

Best Management Practices (BMP) for Industrial Facilities

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

Pollutant Minimization Programs

Pollutant Minimization Programs are included when a pollutant is being discharged from the facility at detectable levels and the ML for the most sensitive method is greater than the calculated WQBEL. These programs typically include an on-going potential source identification, evaluation, and prioritization program to demonstrate progress towards meeting the goal of the WQBEL. Pollutant Minimization Plan requirements are based on 40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a) and 750-1.14(f), and TOGS 1.2.1.

Mini Industrial Pretreatment Program

Pretreatment requirements are intended to protect a WWTP from receiving pollutants that cause pass through or interference to the operations of the POTW receiving such wastes. When necessary, the DEC, in accordance with TOGS 1.3.3. and through issued SPDES permits, requires WWTPs to develop and implement mini or partial pretreatment programs. These requirements are consistent with regulations in 6 NYCRR §750-2.9(b)(1), ECL 17-0811, ECL 17-0825, and 40 CFR §403.5.

As part of the mini pretreatment program, a WWTP must identify industrial users; determine whether legal authority controls (e.g. sewer use laws) are adequate; require, issue, and enforce industrial user permits; and, implement the program.