State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	**2621**	NAICS Code:	**322120**	SPDES Number:	**NY0000191**
Discharge Class (CL):	**03**			DEC Number:	**6-4040-00006/00001**
Toxic Class (TX):	**T**			Effective Date (EDP):	**EDP**
Major-Sub Drainage Basin:	**09 - 05**			Expiration Date (ExDP):	**ExDP**
Water Index Number:	**SL-25**	Item No.:	**910-1086.2**	Modification Dates (EDPM):	
Compact Area:	**IJC**				

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:	**Dunn Paper-Natural Dam LLC**	Attention:	**Marco L'Italien, Mill Manager**		
Street:	**4921 NYS Route 58N**				
City:	**Gouverneur**	State:	**NY**	Zip Code:	**13642**
Email:	**litalienm@bioriginsp.com**	Phone:	**(315) 287-7180**		

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL														
Name:	**Dunn Paper-Natural Dam**													
Address / Location:	**4921 NYS Route 58N**											County:	**St. Lawrence**	
City:	**Gouverneur**						State:	**NY**				Zip Code:	**13642**	
Facility Location:		Latitude:	**44**	°	**20**	'	**10**	" N	& Longitude:	**75**	°	**30**	'	**14**	" W
Primary Outfall No.:	**001**	Latitude:	**44**	°	**20**	'	**09**	" N	& Longitude:	**75**	°	**30**	'	**17**	" W
Wastewater Description:	**Process Wastewater**	Receiving Water:	**Oswegatchie River**				NAICS:	**322121**	Class:	**B**		Standard:	**B**	

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

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

DISTRIBUTION:
BWP Permit Coordinator (permit.coordinator@dec.ny.gov)
BWP Permit Writer
RWE
RPA
EPA Region 2 (Region2_NPDES@epa.gov)

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

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SUMMARY OF ADDITIONAL OUTFALLS

Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
003	**Treated Sanitary**	**322120**	**44** ° **20** ' **10** " N	**75** ° **30** ' **17** " W
Receiving Water:	**Groundwater**		Class:	**GA**

DEFINITIONS

TERM	DEFINITION
7-Day Geo Mean	The highest allowable geometric mean of daily discharges over a calendar week.
7-Day Average	The average of all daily discharges for each 7-days in the monitoring period. The sample measurement is the highest of the 7-day averages calculated for the monitoring period.
12-Month Rolling Average (12 MRA)	The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by the number of months for which samples were collected in the 12-month period.
30-Day Geometric Mean	The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Action Level	Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and department review to determine if numerical effluent limitations should be imposed.
Compliance Level / Minimum Level	A compliance level is an effluent limitation. A compliance level is given when the water quality evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level. The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytical method as given in 40 CFR Part 136, or otherwise accepted by the 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 DEC'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 001

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Treated Process Wastewater	Oswegatchie River	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
								Location		
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	
Flow Rate	Monthly Average	Monitor	MGD			Continuous	Recorder		X	
	Daily Maximum	Monitor	MGD			Continuous	Recorder		X	
pH	Daily Minimum	5.0	S.U.			1/day	Grab		X	
	Daily Maximum	9.0	S.U.							
Temperature	Monthly Average	Monitor	ºF			1/day	Grab		X	
	Daily Maximum	105	ºF			1/day	Grab		X	
Color	Daily Maximum	Monitor	Pt-Co			1/day	Grab		X	
BOD_5	Monthly Average	Monitor	mg/L	1,300	lbs/d	1/week	24-hr. Comp.		X	
	Daily Maximum	Monitor	mg/L	2,400	lbs/d	1/week	24-hr. Comp.		X	
Total Suspended Solids (TSS)	Monthly Average	Monitor	mg/L	1,100	lbs/d	1/week	24-hr. Comp.		X	
	Daily Maximum	Monitor	mg/L	2,200	lbs/d	1/week	24-hr. Comp.		X	
Settleable Solids	Monthly Average	0.2	mL/L			1/day	Grab		X	
	Daily Maximum	Monitor	mL/L			1/day	Grab		X	
Chlorine, Total Residual	Monthly Average	Monitor	mg/L	Monitor	lbs/d	1/day	Grab		X	1
	Daily Maximum	0.094	mg/L	1.2	lbs/d	1/day	Grab		X	1
Aluminum, Total	Monthly Average	2.0	mg/L	25	lbs/d	2/year	24-hr. Comp.		X	
	Daily Maximum	4.0	mg/L	50	lbs/d	2/year	24-hr. Comp.		X	
Copper, Total	Monthly Average	Monitor	mg/L	Monitor	lbs/d	2/year	24-hr. Comp.		X	
	Daily Maximum	Monitor	mg/L	2.0	lbs/d	2/year	24-hr. Comp.		X	
Mercury, Total	Daily Maximum	50	ng/L			1/month	Grab		X	
Zinc, Total	Monthly Average	Monitor	mg/L	Monitor	lbs/d	2/year	24-hr. Comp.		X	
	Daily Maximum	Monitor	mg/L	11	lbs/d	2/year	24-hr. Comp.		X	

WHOLE EFFLUENT TOXICITY (WET) TESTING		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote 3	12	TUa			1/month	See FN 3		X	3
WET - Acute Vertebrate	See footnote 3	12	TUa			1/month	See FN 3		X	3
WET - Chronic Invertebrate	See footnote 3	54	TUc			1/month	See FN 3		X	3
WET - Chronic Vertebrate	See footnote 3	54	TUc			1/month	See FN 3		X	3

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PERMIT LIMITS, LEVELS AND MONITORING – Outfall 001 (Continued)

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Treated Process Wastewater	Oswegatchie River	EDP	ExDP

EMERGING CONTAMINANTS OUTFALL 001		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Perfluorobutanoic Acid (PFBA) CAS No. 375-22-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluoropentanoic Acid (PFPeA) CAS No. 2706-90-3	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluorohexanoic Acid (PFHxA) CAS No.307-24-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluoroheptanoic Acid (PFHpA) CAS No. 375-85-9	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluorooctanoic Acid (PFOA) CAS No. 335-67-1	Daily Maximum			6.7	ng/L	1/quarter	Grab		X	2,4
Perfluorononanoic Acid (PFNA) CAS No. 375-95-1	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluoro-decanoic Acid (PFDA) CAS No. 335-76-2	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluoroundecanoic Acid (PFUnA) CAS No. 2058-94-8	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluorododecanoic Acid (PFDoA) CAS No. 307-55-1	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluorotridecanoic Acid (PFTiA) CAS No. 72629-94-8	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluorotetradecanoic Acid (PFTeA) CAS No. 376-06-7	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluorobutanesulfonic Acid (PFBS) CAS No. 375-73-5	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluoropentanesulfonic Acid (PFPeS) CAS No. 2706-91-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluorohexanesulfonic Acid (PFHxS) CAS No. 355-46-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluoroheptanesulfonic Acid (PFHpS) CAS No. 375-92-8	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluorooctanesulfonic Acid (PFOS) CAS No. 1763-23-1	Daily Maximum			2.7	ng/L	1/quarter	Grab		X	2,4
Perfluorononanesulfonic Acid (PFNS) CAS No. 68259-12-1	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluorodecanesulfonic Acid (PFDS) CAS No. 335-77-3	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluorododecanesulfonic Acid (PFDoS) CAS No. 79780-39-5	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluorooctanesulfonamide (FOSA) CAS No. 754-91-6	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA) CAS No. 2355-31-9	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA) CAS No. 2991-50-6	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
1H,1H,2H,2H-Fluorotelomer Sulfonic Acid (4:2 FTS) CAS No. 757124-72-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
1H,1H,2H,2H- Fluorotelomer Sulfonic Acid (6:2 FTS) CAS No. 27619-97-2	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
1H,1H,2H,2H- Fluorotelomer Sulfonic Acid (8:2 FTS) CAS No. 39108-34-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Treated Process Wastewater	Oswegatchie River	EDP	ExDP

EMERGING CONTAMINANTS OUTFALL 001		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
N-ethyl Perfluoro-octanesulfon-amide (NEtFOSA) CAS No. 4151-50-2	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA) CAS No. 31506-32-8	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE) CAS No. 24448-09-7	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE) CAS No. 1691-99-2	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA or GenX) CAS No. 13252-13-6	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS) CAS No. 763051-92-9	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA) CAS No. 919005-14-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
3-Perfluoropropyl Propanoic Acid (3:3 FTCA) CAS No. 356-02-5	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3 FTCA) CAS No. 914637-49-3	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
3-Perfluoroheptyl Propanoic Acid (7:3 FTCA) CAS No. 812-70-4	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA) CAS No. 151772-58-6	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluoro-4-Methoxybutanoic Acid (PFMBA) CAS No. 863090-89-5	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluoro-3-Methoxypropanoic Acid (PFMPA) CAS No. 377-73-1	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA) CAS No. 113507-82-7	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS) CAS No. 756426-58-1	Daily Maximum	Monitor	ng/L			1/quarter	Grab		X	2

PERMIT LIMITS, LEVELS AND MONITORING – OUTFALL 003

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
003	Treated Sanitary Wastewater	Groundwater	EDP	ExDP

No Monitoring Required

FOOTNOTES:

1. Sampling and reporting for total residual chlorine is only necessary if chlorine is used for disinfection, elsewhere in the treatment process, or the facility otherwise has reasonable potential to discharge chlorine. Otherwise, the permittee shall report NODI-9 on the DMR.

2. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).

3. **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 **41:1** for acute, and **54:1** for chronic.

   Monitoring Period - WET testing shall be performed monthly for the duration of the permit.

   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.

4. Emerging Contaminants Action Level: Upon each exceedance of the Action Level for PFOA and/or PFOS, perform one (1) confirmatory sample within seven (7) days for the parameter(s) exceeded. If confirmed exceedance notify DEC at emergingcontaminantsdow@dec.ny.gov, and initiate minimization program and continuous reporting as outlined in the Schedule of Additional Submittals. All PFAS compound sampling shall use EPA Method 1633.

BEST MANAGEMENT PRACTICES (BMPs) FOR INDUSTRIAL FACILITIES

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

1. **General** - The permittee shall develop, maintain, and implement a Best Management Practices (BMP) plan to prevent releases of significant amounts of pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or waste disposal; and stormwater discharges including, but not limited to, drainage from raw material storage. The BMP plan shall be documented in narrative form and shall include the 13 minimum BMPs and any necessary plot plans, drawings, or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the plan and may be incorporated by reference. A copy of the current BMP plan shall be submitted to the DEC as required in item (2.) below and a copy must be maintained at the facility and shall be available to authorized DEC representatives upon request.
2. **Compliance Deadlines** – The initial BMP plan was received by the Department on 9/1/2009. The BMP plan **shall be reviewed annually** and shall be modified whenever (a) changes at the facility materially increase the potential for releases of pollutants; (b) actual releases indicate the plan is inadequate, or (c) a letter from the DEC identifies inadequacies in the plan. The permittee shall certify in writing, as an attachment to the December Discharge Monitoring Report (DMR), that the annual review has been completed. Subsequent modifications to or renewal of this permit does not reset or revise these deadlines unless a new deadline is set explicitly by such permit modification or renewal.
3. **Facility Review** - The permittee shall review all facility components or systems (including but not limited to material storage areas; in-plant transfer, process, and material handling areas; loading and unloading operations; storm water, erosion, and sediment control measures; process emergency control systems; and sludge and waste disposal areas) where materials or pollutants are used, manufactured, stored or handled to evaluate the potential for the release of pollutants to the waters of the State. In performing such an evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, cross-contamination of storm water by process materials, settlement of facility air emissions, the effects of natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills and leaks. The relative toxicity of the pollutant shall be considered in determining the significance of potential releases. The review shall address all substances present at the facility that are identified in the SPDES application Form NY-2C (available at https://www.dec.ny.gov/docs/permits_ej_operations_pdf/form2c.pdf) or that are required to be monitored for by the SPDES permit.
4. **13 Minimum BMPs:** Whenever the potential for a release of pollutants to State waters is determined to be present, the permittee shall identify BMPs that have been established to prevent or minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider good industry practices and, where appropriate, structural measures such as secondary containment and erosion/sediment control devices and practices. USEPA guidance for development of stormwater elements of the BMP is available in *Developing Your Stormwater Pollution Prevention Plan a Guide for Industrial Operators*, February 2009, EPA 833-B-09-002. As a minimum, the plan shall include the following BMPs:

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

BMPs FOR INDUSTRIAL FACILITIES (continued)

5. **Stormwater Pollution Prevention Plans (SWPPPs) Required for Discharges of Stormwater from Construction Activity to Surface Waters -** A SWPPP shall be developed prior to commencing any construction activity that will result in soil disturbance of one or more acres of uncontaminated area[1]. (Note: the disturbance threshold is 5000 SF in the New York City East of Hudson Watershed). The SWPPP shall conform to the current version of the SPDES General Permit for Stormwater Discharges from Construction Activity (CGP), including the *New York Standards and Specifications for Erosion and Sediment Control* and *New York State Stormwater Management Design Manual.* The permittee shall submit a copy of the SWPPP and any amendments thereto to the local governing body and any other authorized agency having jurisdiction or regulatory control over the construction activity **at least 30 days prior to soil disturbance**. The SWPPP shall be maintained on-site and submitted to the Department only upon request. When a SWPPP is required, a properly completed *Notice of Intent* (NOI) form shall be submitted (available at www.dec.ny.gov/chemical/43133.html) prior to soil disturbance. Note that submission of the NOI is required for informational purposes; the permittee is not eligible for and will not obtain coverage under any SPDES general permit for stormwater discharges. SWPPPs must be developed for subsequent site disturbances in accordance with the above requirements. The permittee is responsible for ensuring that the provisions of each SWPPP are properly implemented.

6. **Required Sampling For "Hot Spot" Identification** - Development of the BMP plan shall include sampling of waste stream segments for the purpose of pollutant "hot spot" identification. The economic achievability of effluent limits will not be considered until plant site "hot spot" sources have been identified, contained, removed or minimized through the imposition of site specific BMPs or application of internal facility treatment technology. For the purposes of this permit condition a "hot spot" is a segment of an industrial facility (including but not limited to soil, equipment, material storage areas, sewer lines etc.) which contributes elevated levels of problem pollutants to the wastewater or stormwater collection system of that facility. For the purposes of this definition, problem pollutants are substances for which treatment to meet a water quality or technology requirement may, considering the results of waste stream segment sampling, be deemed unreasonable. For the purposes of this definition, an elevated level is a concentration or mass loading of the pollutant in question which is sufficiently higher than the concentration of that same pollutant at the compliance monitoring location so as to allow for an economically justifiable removal, isolation, or B.A.T. treatment of wastewaters emanating from the segment.

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

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

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

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

BMPs FOR INDUSTRIAL FACILITIES (continued)

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

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

(i) *Bulk Storage Secondary Containment Systems:*

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

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

(ii) *Transfer Area Secondary Containment Systems:*

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

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

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

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

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

MERCURY MINIMIZATION PROGRAM (MMP) - Type III

1. General - 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 001, 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[2]. Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate. Monitoring must be coordinated so that the results can be effectively compared between locations.

      Minimum required monitoring is as follows:

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

      ii. *Key Locations* and *Potential Mercury Sources* – The permittee must sample *key locations*, chosen to identify *potential mercury sources*, at least annually.

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

      iv. Additional monitoring must be completed as required elsewhere in this permit (e.g., locations tributary to compliance points).

[2] Outfall monitoring must be conducted using the methods specified in Table 8 of *DOW 1.3.10*.

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

b. Control Strategy - The control strategy must contain the following minimum elements:
   i. Monitoring and Inventory/Inspections
      1) Monitoring shall be performed as described in 2.a above. As mercury sources are found, the permittee must track down and minimize these sources.
      2) The permittee must inventory and/or inspect users of its system as necessary to support the MMP.
         a) *Potential mercury sources*
            1. The permittee must maintain an inventory of *potential mercury sources.*
            2. The permittee must inspect *potential mercury sources* once every five years. Alternatively, the permittee may develop and implement an outreach program[3] which informs users of their responsibilities as *potential mercury sources.* The permittee must conduct the outreach program at least once every five years. The outreach program should be supported by a subset of site inspections.
            3. A file shall be maintained containing documentation demonstrating compliance with 2.b.i.2)a) above. This file shall be available for review by DEC representatives and copies shall be provided upon request.
   ii. Equipment and Materials – Equipment and materials (e.g., thermometers, thermostats) used by the permittee, which may contain mercury, must be evaluated by the permittee. As equipment and materials containing mercury are updated/replaced, the permittee must use mercury-free alternatives, if possible.
   iii. Bulk Chemical Evaluation – For chemicals, used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain a manufacturer's certificate of analysis, a chemical analysis performed by a certified laboratory, and/or a notarized affidavit which describes the substances' mercury concentration and the detection limit achieved. If possible, the permittee must only use bulk chemicals utilized in the wastewater treatment process which contain <10 ppb mercury.

c. **Status Report - An annual** status report must be developed and maintained on site, in accordance with the Schedule of Additional Submittals, summarizing:
   i. All MMP monitoring results for the previous reporting period;
   ii. A list of known and *potential mercury sources*
      1) If the permittee meets the criteria for MMP Type IV, the permittee must notify the 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 DEC representatives and copies must be provided upon request in accordance with 6 NYCRR 750-2.1(i) and 750-2.5(c)(4).

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

   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.

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

DEFINITIONS:

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

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

DISCHARGE NOTIFICATION REQUIREMENTS

(a) The permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit, unless the Permittee has obtained a waiver in accordance with the Discharge Notification Act (DNA). Such signs shall be installed before initiation of any new discharge location.

(b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.

(c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.

(d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

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

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.

FACILITY MAP

GENERAL REQUIREMENTS

A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through H as follows:

B. General Conditions

1.	Duty to comply	6 NYCRR 750-2.1(e) & 2.4
2.	Duty to reapply	6 NYCRR 750-1.16(a)
3.	Need to halt or reduce activity not a defense	6 NYCRR 750-2.1(g)
4.	Duty to mitigate	6 NYCRR 750-2.7(f)
5.	Permit actions	6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h)
6.	Property rights	6 NYCRR 750-2.2(b)
7.	Duty to provide information	6 NYCRR 750-2.1(i)
8.	Inspection and entry	6 NYCRR 750-2.1(a) & 2.3

C. Operation and Maintenance

1.	Proper Operation & Maintenance	6 NYCRR 750-2.8
2.	Bypass	6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7
3.	Upset	6 NYCRR 750-1.2(a)(94) & 2.8(c)

D. Monitoring and Records

1.	Monitoring and records	6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d)
2.	Signatory requirements	6 NYCRR 750-1.8 & 2.5(b)

E. Reporting Requirements

1.	Reporting requirements for non-POTWs	6 NYCRR 750-2.5, 2.6, 2.7, &1.17
2.	Anticipated noncompliance	6 NYCRR 750-2.7(a)
3.	Transfers	6 NYCRR 750-1.17
4.	Monitoring reports	6 NYCRR 750-2.5(e)
5.	Compliance schedules	6 NYCRR 750-1.14(d)
6.	24-hour reporting	6 NYCRR 750-2.7(c) & (d)
7.	Other noncompliance	6 NYCRR 750-2.7(e)
8.	Other information	6 NYCRR 750-2.1(f)

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

G. SPDES Permit Program Fee
The permittee shall pay to the DEC 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.

H. 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 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 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 Department or its designated agent.

B. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each **one (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/103774.html. **Hardcopy paper DMRs will only be accepted if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

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

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

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

Department of Environmental Conservation
Regional Water Engineer, Region 6
State Office Building,
317 Washington Street, Watertown, New York 13601-3787 Phone: (315) 785-2513

D. Schedule of Additional Submittals:

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

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
001	EMERGING CONTAMINANT (EC) MINIMIZATION PROGRAM The permittee shall initiate and continue trackdown of potential sources by utilizing the "*Emerging Contaminants Investigation Checklist for Industrial Facilities*" available at Emerging Contaminants In NY's Waters - NYSDEC.	Confirmation of initial Action Level exceedance
	The permittee shall continue track down of potential sources and submit reports summarizing: a. All EC monitoring results taken to date; b. A list of known and potential EC sources; c. All actions taken to reduce EC contaminants; and d. Proposed next steps, including an approvable monitoring plan to identify/confirm EC sources and ensure continued progress towards minimization/eliminating contaminants.	12 months after initiating track down and every 6 months thereafter until effluent falls below action levels for at least 12 months or until further notified by the Department

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
N/A	BEST MANAGEMENT PRACTICES (BMP) PLAN The permittee shall review the completed BMP plan, submitted to this DEC on 09/01/2009, on an annual basis. The BMP plan shall be modified whenever: (a) changes at the facility materially increase the potential for releases of pollutants, (b) actual releases indicate the plan is inadequate, or (c) a letter from the DEC identifies inadequacies in the plan. The permittee shall certify in writing, as an attachment to the December Discharge Monitoring Report (DMR), that the annual review has been completed. All BMP plan revisions must be submitted to the Regional Water Engineer within 30 days.	Annually Every January 28th
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
N/A	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 December DMR.	Annually Every January 28th
N/A	MERCURY MINIMIZATION PLAN The permittee must complete and maintain onsite an annual mercury minimization status report in accordance with the requirements of this permit.	***Maintained Onsite*** EDP + 12 months, annually thereafter

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

E. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

F. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.

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

H. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.

I. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

SPDES Permit Fact Sheet
Dunn Paper-Natural Dam, LLC
Dunn Paper
NY0000191

NEW YORK STATE | Department of Environmental Conservation

Contents

Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) EBPS permit renewal has been drafted for the Dunn Paper Natural Dam. The changes to the permit are summarized below:

- Updated permit format, definitions, and general conditions
- Outfall 002 has been removed from the individual SPDES permit and it's "wastewater type" has been changed from an "excess intake water" to "stormwater" water, correcting a previous error. The permittee must now obtain coverage for Outfall 002 under the Multi-Sector General Permit (MSGP).

Outfall 001

- Increased loading effluent limits for Biochemical Oxygen Demand (BOD_5) and Total Suspended Solids (TSS) to account for revised paper production figures
- Updated Whole Effluent Toxicity (WET) action levels to limits and changed the numeric values based on revised available dilution:
  - For acute, changed from 2.9 to 12 TUa
  - For chronic, changed from 19 to 54 TUc
- Added monitoring requirement for color
- Revised sampling frequencies for:
  - pH (increased from weekly to daily)
  - Aluminum, copper, and zinc (decreased from quarterly to twice per year)
- Revised concentration units (from µg/L to mg/L) for aluminum, copper, zinc, and total residual chlorine (TRC)
- Discontinued action levels for benzene, toluene, xylene, and total phenols
- Added a new 50 ng/L mercury limit and new Mercury Minimization Plan (MMP) requirements
- New action levels for Perfluorooctanoic Acid (PFOA) of 6.7 ng/L and perfluorooctanesulfonic acid (PFOS) of 2.7 ng/L
  - New Schedule of Additional Submittals requirement specifying action level requirements
- New monitoring requirement for full suite of PFAS parameters

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

2/1/1995 The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 1/31/2000. The 1995 permit, along with all subsequent modifications, has formed the basis of this permit.

The permit was administratively renewed in 2000, 2005, 2010, and 2015. The most recent permit administrative renewal was effective until 3/31/2020, at which time the facility became SAPA[1] extended.

2/1/2018 Permit was modified to include:

- A new monthly average settleable solids limit of 0.2 mL/L

- A new temperature limit of 105°F and Thermal Discharge Study requirement
- New daily maximum total residual chlorine limits of 94 µg/L and 1.2 lbs/d
- New monthly average total aluminum limits of 2,000 µg/L and 25 lbs/d
- New daily maximum total aluminum limits of 4,000 µg/L and 50 lbs/d
- Updated WET testing action levels from 5.6TUa/38TUc to 2.9TUa/19TUc

3/31/2020 The current permit was allowed to stay in effect pursuant to SAPA[1].

10/10/2023 Department issued a Request for Information (RFI) to modify and renew the SPDES permit due to the facility's EBPS score[2]. At the time of the RFI, the facility had an EBPS score of 200, based on longevity and exceedances of zinc action levels.

12/28/2023 Dunn Paper-Natural Dam, LLC submitted an NY-2C permit application.

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

Facility Information

Dunn Paper is an industrial facility (SIC code 2621) that uses purchased pulp and recycled paper to produce materials used by other facilities to produce napkins, absorbent pads, medical gowns and face masks and is subject to categorical effluent limitation guidelines (ELG) (see summary table at the end of this factsheet). The facility is permitted to discharge via three outfalls, Outfalls 001, 002, and 003.

Effluent for primary Outfall 001 consists of process wastewater and non-contact cooling water. The treatment system was first constructed in 1973 to provide primary treatment and currently includes the following treatment units:

- Primary clarification (includes the addition of coagulants and flocculants)
- Addition of chlorine to control biological growth within the production-side of the plant

Sludge is screw pressed (filtrate water recycled to the head of the clarifier). Solids are trucked to a landfill in Rodman, NY.

Outfall 001 discharges above the water surface (height varies depending on the Oswegatchie River water level) from a 9-inch diameter steel pipe and into the 15-foot-wide discharge tunnel for hydro unit number 1. The end of the pipe extends approximately 4 feet from the side of the discharge tunnel. The discharge tunnel daylights into the Oswegatchie River (Class B).

Outfall 002 effluent consists of untreated stormwater to the Oswegatchie River and is being removed from the individual SPDES permit. The permittee is required to obtain Multi Sector General Permit (MSGP) coverage for this outfall. See Stormwater Pollution Prevention Requirements section for additional information. Outfall 002 was previously listed as "Excess Intake Water" in the SPDES permit. This was an error and is now being corrected to refer to Outfall 002 as stormwater only.

[1] State Administrative Procedures Act Section 401(2) and 6 NYCRR 621.11(*l*)
[2] Pursuant to 6 NYCRR 750-1.18 and NYS Environmental Benefit Permit Strategy (EBPS)

Outfall 003 consists of treated sanitary wastewater from three ((1) 5,000 gallon capacity, (1) 630 gallon capacity, (1) 1,000 gallon capacity) on-site septic tanks discharging to groundwater.

Site Overview

Enforcement History

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

Existing Effluent Quality

The Pollutant Summary Table presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from Discharge Monitoring Reports and the application submitted by the permittee for the period 10/31/2022 to 11/30/2023. This date range was selected as it captured representative data of current plant operations. Appendix Link

Interstate Water Pollution Control Agencies

All outfalls at the facility are located within the Great Lakes watershed and International Joint Commission (IJC) compact area. Appendix Link

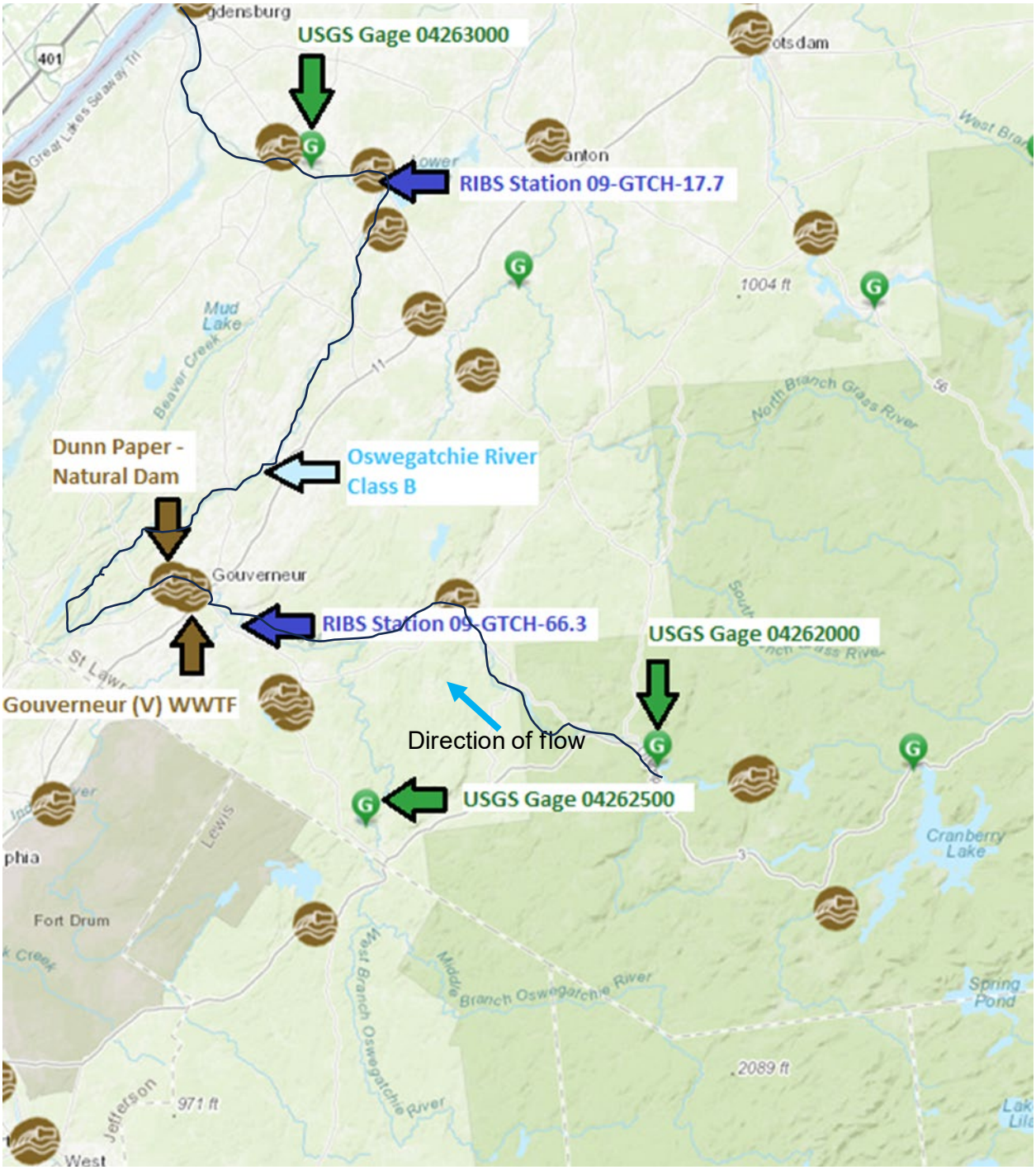
Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	2621	Process Wastewater from Papermaking	Oswegatchie River Class B
002	9999	Stormwater **(outfall removed and coverage to be obtained under MSGP program)**	Oswegatchie River Class B
003	N/A	Treated Sanitary Waste	Groundwater Class GA
MSGP 001	2621	Stormwater Under MSGP NYR00F629	Oswegatchie River Class B
MSGP 002	2621	Stormwater Under MSGP NYR00F629	Oswegatchie River Class B
MSGP 003	2621	Stormwater Under MSGP NYR00F629	Oswegatchie River Class B

Reach Description: The Oswegatchie River is classified as a Class B waterbody (6 NYCRR Part 910, Table I, Item 1086.2).

The Village of Gouverneur Wastewater Treatment Plant (NY0020117) discharges treated sanitary wastewater and combined sewer overflow about 1.2 miles upstream of Dunn Paper's Outfall 001. There are no significant influences on the Oswegatchie immediately downstream of Dunn Paper's Outfall 001.



See the Outfall and Receiving Water Summary Table and Appendix for additional information.

Critical Receiving Water Data

The low flow condition for the Oswegatchie River was obtained from a linear interpolation analysis of USGS gage stations 04262000 and 04263000 located at Oswegatchie, NY (upstream) and Heuvelton, NY (downstream), respectively. The upstream gage is about 32 miles from Outfall 001 and the downstream gage is about 46 miles from Outfall 001.

The 1Q10, 7Q10, and 30Q10 flows of the gages were found from the USGS Hydrologic Toolbox software and an analysis of data from 1924 to 2022.

The upstream gage is located immediately downsteam of the outlet of a hydro facility. Given the long period of record for this stream gage, the low-flow statistics generated by this gage are considered representative of the Oswegatchie River even considering the controlled nature of the flows from the hydro structure.

The Natural Dam, owned and operated by Dunn Paper, is immediately upstream of Outfall 001 and has a minimum bypass flow of 77 cfs (49.8 MGD) per FERC license #2851. Since the natural river flow can be diverted around Dunn Paper's intake, the Natural Dam's influence on the local hydrology was assumed to be negligible and no ambient flow adjustments were made.

The previous water quality review established a 7Q10 flow at Outfall 001 of 169 cfs (109 MGD) using the 1975 Water Quality Management Plan for the Oswegatchie River. The 1Q10 and 30Q10 flows were previously estimated by applying generalized mulitpliers to the 7Q10 value. During this water quality review, professional judgement was applied to continue the same 7Q10 flow but use the combined gage analysis to estimate more representative values for the 1Q10 and 30Q10 flows.

Note: There are several "run-of-the-river" type dams between the towns of Edwards and Heuvelton. Per NYSDEC's *Water Quality Management Plan for the St. Lawrence Basin* (June 1975), these dams are not expected to intercept a significant volume of river flow and, therefore, did not affect the low flow calculations.

Gage Name: USGS Oswegatchie / USGS Huevelton
Gage IDs: 04262000 / 04263000
Drainage Area at Gage (mi^2): 259 / 979
Drainage Area at Facility (mi^2): 727 Source: USGS Streamflow Estimation Tool
1Q10 Flow at Gage (MGD): 67.4/ 145 Source: USGS Hydrologic Toolbox
7Q10 Flow at Gage (MGD): 92.6 / 179 Source: USGS Hydrologic Toolbox
30Q10 Flow at Gage (MGD): 124 / 232 Source: USGS Hydrologic Toolbox

Calculated 1Q10 Flow at Facility (MGD): 84
7Q10 Flow at Facility (MGD): 109
Calculated 30Q10 Flow at Facility (MGD): 137

The critical effluent flow rate for Outfall 001 is 2.1 MGD (3.3 cfs) and was established from the maximum flow value reported to the Department via NetDMR for the period of 10/2022 through 11/2023.

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

Dilution Ratio = (Facility Flow + Low Flow) / Facility Flow

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	41:1	54:1	66:1	TOGS 1.3.1

The calculated dilution ratos are higher than previous water quality review determinations and reflect a more representative interaction between the effluent and receiving waterbody as the values were determined through the analysis of multiple gages with long periods of record.

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[3]. The applicable effluent guidelines and limits are listed at the end of the Pollutant Summary Table in the USEPA ELG Calculation Table. Appendix Link

Whole Effluent Toxicity (WET) Testing

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

- There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five. (#4)
- Previous WET testing indicated a problem including actual or predicted test failures/exceedances and demonstration of Reasonable Potential. (#6)
- Treatment plants which equal or exceed a discharge of 1.0 MGD. (#7)

The Department's Toxicity Testing Unit (TTU) has reviewed the January thru December 2023 toxicity test results for Dunn Paper (NY0000191), shown in Table 1 below. After performing a reasonable potential analysis, testing predicted the effluent to be both acutely and chronically toxic after mixing with the receiving water of the Oswegatchie River. While the toxicity testing was done at the previously established dilution ratios, the effluent is still expected to exhibit toxic conditions at the revised dilution ratios. Due to the long history of toxicity concerns and continued increases in toxicity over 2023, the WET action levels have been changed to effluent limitations and adjusted based on the revised dilution ratios. Given the location within the Great Lakes drainage basin, the permit will continue to require both acute and chronic WET testing. Samples will be collected monthly for the duration of the permit. WET testing limits of 12 TUa and 54 TUc

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

have been included in the permit for each species. The acute limit for each species represent the acute dilution ratio times a factor of 0.3. The chronic limits represent the chronic dilution ratio.

Table 1: Summary of 2023 Acute & Chronic WET test results at Dunn Paper (NY0000191), including the required Reasonable Potential Analysis (RPA).

Test Date	[1]MSS 48H LC50 (%Effluent)	[2]MSS TUa	[3]TUa Action Level	[4]MSS Survival 80% Effluent	[5]Acute Test Result	[6]MSS RPD TUa	[7]Acute WET Limit Required	[8]MSS 7D NOEC/IC25 (%Effluent)	[9]MSS NOEC/IC25 TUc	[10]TUc Action Level	[11]Chronic Test Result NOEC/IC25	[12]MSS RPD IC25 TUc	[13]Chronic WET Limit Required
01/23	<3.5% (FI)	>28.6 (FI)	2.9	0% (FI)	**Fail**	>72.1	**Yes**	<5.0% (FI)/1.3% (FI)	>20.0 (FI)/76.9 (FI)	19.0	**Fail/Fail**	162.3	**Yes**
02/23	32.5% (I)	3.1 (I)	2.9	10% (I)	**Fail**	7.8	**Yes**	5.0% (I)/7.1% (I)	20.0 (I)/14.1 (I)	19.0	**Fail**/Pass	29.8	**Yes**
03/23	>80% (FI)	<1.3 (FI)	2.9	100% (FI)	Pass	3.3	**Yes**	^5.0% (I)/6.8% (I)	^20.0 (I)/14.7 (I)	19.0	**Fail**/Pass	31.0	**Yes**
04/23	56.6% (I)	1.8 (I)	2.9	20% (I)	Pass	4.5	**Yes**	10.0% (I)/22% (I)	10.0 (I)/4.5 (I)	19.0	Pass/Pass	9.5	No
05/23	>80% (FI)	<1.3 (FI)	2.9	100% (FI)	Pass	3.3	**Yes**	20.0% (FI)/25.1% (I)	5.0 (FI)/4.0 (I)	19.0	Pass/Pass	8.4	No
06/23	6.2% (I)	16.1 (I)	2.9	0% (FI)	**Fail**	40.6	**Yes**	<5.0% (FI)/1.5% (I)	>20.0 (FI)/66.7 (I)	19.0	**Fail/Fail**	140.7	**Yes**
07/23	20% (I)	5.0 (I)	2.9	0% (I)	**Fail**	12.6	**Yes**	<5.0% (I)/1.6% (I)	>20.0 (I)/62.5 (I)	19.0	**Fail/Fail**	131.9	**Yes**
08/23	80% (I)	1.3 (I)	2.9	50% (I)	Pass	3.3	**Yes**	<5.0% (F)/2.2% (F)	>20.0 (F)/45.5 (F)	19.0	**Fail/Fail**	96.0	**Yes**
09/23	14.1% (I)	7.1 (I)	2.9	0% (I)	**Fail**	17.9	**Yes**	<5.0% (I)/5.3 (I)	>20.0 (I)/18.9 (I)	19.0	**Fail**/Pass	39.9	**Yes**
10/23	>80% (FI)	<1.3 (FI)	2.9	90% (I)	Pass	3.3	**Yes**	20.0% (I)/21.0% (I)	5.0 (I)/4.8 (I)	19.0	Pass/Pass	10.1	No
11/23	>80% (FI)	<1.3 (FI)	2.9	100% (FI)	Pass	3.3	**Yes**	10.0% (FI)/13.8% (I)	10.0 (FI)/7.2 (I)	19.0	Pass/Pass	15.2	No
12/23	40% (I)	2.5 (I)	2.9	0% (I)	Pass	6.3	**Yes**	10.0% (I)/11.2 (I)	10.0 (I)/8.9 (I)	19.0	Pass/Pass	18.8	No

^The reported invertebrate NOEC results of 10% or 10.0 TUc were likely underestimated based on the elevated PMSD of 32%. Therefore, the NOEC results are considered to be closer to 5% or 20.0 TUc with an average of 23.3 (Lab Water Control), 18.9 (19% effect – 5% effluent), 15.0 (36% effect – 10% effluent), 7.9, 6.1 and 2.6 young produced, which is more in line with the generated IC25.

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

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

[3]Toxic Unit Acute Action Level/Limit: is calculated as [Acute Dilution Factor x 0.3 TUa] representing the maximum allowable effluent TUa at the edge of the acute mixing zone after mixing with the receiving water and using the seven-day once-in-ten year low flow (7Q10), to assure acute protection of the receiving water. When the Acute Dilution Factor is <3.3, the default Acute Action Level of 0.3 TUa is used representing the maximum allowable effluent TUa at the end of pipe to assure acute protection of the receiving water.

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

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

[6]Most Sensitive Species Reasonable Potential Determination Toxic Units Acute: is calculated as (MSS TUa x 2.52), the Reasonable Potential Multiplier for twelve monthly tests with the coefficient of variation directly calculated, taking into account the statistical potential for effluent variability to cause an exceedance of the toxicity-based action level.

[7]Acute Whole Effluent Toxicity Limit Required: MSS RPD TUa ≤ TUa Action Level, then no toxicity-based limit is required, and the action level remains in place. If MSS RPD TUa > TUa Action Level, then a toxicity-based limit is required, and the action level becomes the limit. **In low dilution situations, the application of the RPD to the acute results often mathematically suggests the need for acute WET limits even when there is no toxicity evident in 100% effluent (a non-detect). Therefore, this data cannot be used to implement a WET limit.

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

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

[10]Toxic Unit Chronic Action Level/Limit: is calculated as [Chronic Dilution Factor x 1.0 TUc] representing the maximum allowable effluent TUc at the edge of the chronic mixing zone after mixing with the receiving water and using the seven-day once-in-ten year low flow (7Q10), to assure chronic protection of the receiving water.

[11]Chronic Test Result: MSS NOEC/IC25 TUc ≤ TUc Action Level/Limit for passing effluent test result and MSS NOEC/IC25 TUc > TUc Action Level/Limit for a failing effluent test result.

[12]Most Sensitive Species Reasonable Potential Determination Toxic Units Chronic: is calculated as (MSS IC25 TUc x 2.11), the Reasonable Potential Multiplier for twelve monthly tests with the coefficient of variation directly calculated, taking into account the statistical potential for effluent variability to cause an exceedance of the toxicity-based action level.

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

Anti-backsliding

The limitations contained in the permit are at least as stringent as the previous permit limits and there are no instances of backsliding except for mass loading limits for BOD_5 and TSS. These limits were based on the facility's paper production, which has increased since the last full technical review (ref. Supplement M of the NY-2C Application). These less stringent limits constitute *"information is available, which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods), which would have justified the application of a less stringent effluent limitation at the time of permit issuance…",* 6 NYCRR Part 750-1.10(c)(2)(i). Additional information on these parameters can be found in the Effluent Limitation Guidelines section of this fact sheet. Appendix Link

Antidegradation

The permit contains effluent limitations which ensure that the best usages of the receiving waters will be maintained. The Notice of Complete Application published in the Environmental Notice Bulletin contains information on the State Environmental Quality Review (SEQR)[4] determination. Appendix Link

Discharge Notification Act Requirements

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

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

Best Management Practices (BMPs) for Industrial Facilities

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

Stormwater Pollution Prevention Requirements

The facility discharges stormwater associated with industrial activity and requires SPDES permit coverage under 40 CFR 122.26(a)(6). Stormwater discharges at this facility are required to obtain coverage under the current Multi-Sector General Permit (MSGP) Sector B (GP-0-23-001). This requirement is new for Outfall 002, which is being removed from the individual permit.

Mercury[5]

The multiple discharge variance (MDV) for mercury provides the framework for NYSDEC to require mercury monitoring and mercury minimization programs (MMPs), through SPDES permitting. The facility is an EPA Major Class 03 industrial facility located in the Great Lakes drainage basin and the permit includes requirements for the implementation of MMP Type III. This requirement is new.

Based on one (1) data point of 28 ng/L collected at Outfall 001 as part of the application the facility is expected to meet the new daily maximum permit limit of 50 ng/L (with monthly sampling frequency). The limit represents the general level currently achievable (GLCA). The data collected

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

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

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

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

Emerging Contaminant Monitoring

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

Given the emerging nature of these contaminants; the USEPA's addition of PFOA and PFOS to the hazardous substance list under CERCLA; the USEPA's addition of PFOA and PFOS to the recommended contaminant monitoring list for state fish advisory programs; and pursuant to 6 NYCRR 750-1.14(f), the Department is imposing action levels, and minimization programs when any of the action levels are exceeded. This requirement is being imposed for the protection of the downstream receiving waterbody and to gather additional data needed to support establishment of TBELs.

Requirements: Based on the available data (presented below in the Pollutant Summary Table) showing detections of PFOS in the facility's influent, action levels for both PFOS and PFOA set at the human health guidance values of 2.7 ng/L and 6.7 ng/L, respectively, have been included in the permit at Outfall 001.

Monitoring is required for the remaining 38 PFAS compounds at Outfall 001 pursuant to 6 NYCRR Part 750-1.13(b). Monitoring requirements are also consistent with guidance released in EPA memorandums dated April 28, 2022 and December 5, 2022.

Schedule of Additional Submittals

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

- Updated Best Management Practices (BMP) Plan
- Whole Effluent Toxicity (WET) Testing
- Water Treatment Chemical (WTC) Annual Report Form
- Mercury Minimization Plan (MMP) Annual Status Report – to be maintained on-site
- Emerging Comtaminants – trackdown requirements if action levels are exceeded

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	44° 20' 10" N	75° 30' 17" W	Oswegatchie River	B	WIN: SL-25 (portion 4) PWL: 0905-0097	09 / 05	26[6]	84	111	137	2.1	41:1	54:1	66:1
003	44° 20' 10" N	75° 30' 17" W	Groundwater	GA	-	GA	-	-	-	-	-	-	-	-

POLLUTANT SUMMARY TABLE

Outfall 001

Outfall #	001	**Description of Wastewater:** Process Wastewater													
		Type of Treatment: Clarification, water treatment chemical addition.													
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 10/2022 to 11/2023 was obtained from Discharge Monitoring Reports provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.															
Flow Rate	MGD	Monthly Avg	**Monitor**	1.3 Actual Average	14/0	-	-	Narrative: No alterations that will impair the waters for their best usages.					703.2	-	Monitor TOGS 1.2.1
		Daily Max	**Monitor**	2.1 Actual Maximum	14/0	-	-								Monitor TOGS 1.2.1
	Flow will continue to be monitored for informational purposes and to calculate pollutant loadings. The actual maximum effluent discharge flow of 2.1 MGD was used as the critical effluent flow for the full technical review.														
pH	SU	Minimum	**5.0**	5.6 Actual Min	14/0	**5.0**	40 CFR 430.123	7.5[8]	-	6.5–8.5	Range	-	703.3	-	TBEL ELG/BCT
		Maximum	**9.0**	11 Actual Max	14/0	**9.0**									

[6] Ambient hardness data obtained from one (1) data sample collected at RIBS station 09-GTCH-66.3 collected in 2019. This value is consistent with the St. Lawrence watershed value for hardness of 73 mg/L.

[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 was obtained from the 80%ile of data from RIBS station 09-GTCH-66.3, located ~5.45 miles downstream from Outfall 001.

Outfall #	001	**Description of Wastewater:** Process Wastewater													
		Type of Treatment: Clarification, water treatment chemical addition.													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data: Permit Limit	Existing Discharge Data: Existing Effluent Quality[7]	Existing Discharge Data: # of Data Points Detects / Non-Detects	TBELs: Limit	TBELs: Basis	Water Quality Data & WQBELs: Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL	ML	Basis for Permit Requirement
	Consistent with the previous permit and the Effluent Limitation Guidelines specified in 40 CFR 430.123 for non-integrated tissue producing facilities, a pH range of 5.0 to 9.0 standard units is specified. Given the available dilution, an effluent limitation equal to the TBEL is protective of the WQS. The monitoring frequency has been revised from weekly to daily to account for variability in the effluent.														
Temperature	°F	Monthly Avg	**Monitor**	88 Actual Average	14/0	-	-	-	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90°F at any point and... shall not be raised or lowered to more than 5°F over the temperature that existed before the addition				704.2	-	Monitor 750-1.13
		Daily Max	**105**	104 Actual Max	14/0	-	-								Antibacksliding
	The discharge is a thermal discharge consisting of (mainly) non-contact cooling water (NCCW). To achieve standards specified in 6 NYCRR Part 704, an effluent temperature limit of 105 ºF will continue. Given the dilution available, the daily maximum effluent limit of 105°F has been evaluated and continues to be protective of the WQS.														
Dissolved Oxygen (DO)	mg/L	-	-	-	-	-	-	-	6.5 Critical Point	(Non-Trout) 4.0 mg/L	Narrative	No Reasonable Potential	703.3	-	No Limitation
	The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions: Effluent DO = 2.0 mg/L (assumed value consistent with TOGS 1.3.1D), effluent BOD_5 = 137 mg/L (calculated from the mass-loading limit and critical effluent flow of 2.1 MGD), a negligible effluent nitrogenous oxygen demand (NOD) (due to no available ammonia data and ammonia not believed to be present in the discharge in significant amounts), effluent temperature = 40.6°C (temperature limit of 105°F), and an ambient temperature = 25°C (assumed value consistent with TOGS 1.3.1D). Reach Description: The model included reaeration from the dam located near the intake structure, along with the Village of Gouverneur WWTF located ~1.0 mile upstream. The model showed that DO standards are maintained and consequently WQBELs for DO and BOD are unnecessary and the TBELs for BOD and ammonia monitoring are protective of water quality.														
5-day Biochemical Oxygen Demand (BOD_5)	mg/L	Monthly Avg	**Monitor**	32	14/0	-	-	-	See Dissolved Oxygen			-	703.3	-	Monitor 750-1.13
		Daily Max	**Monitor**	105	14/0	-	-					-			Monitor 750-1.13
	lbs/d	Monthly Avg	1000	522	14/0	**1300**	40 CFR 430.123 ELG BCT					-			TBEL ELG/BCT
		Daily Max	1900	1338	14/0	**2400**	40 CFR 430.123 ELG BCT					-			TBEL ELG/BCT

Outfall #	001	**Description of Wastewater:** Process Wastewater													
		Type of Treatment: Clarification, water treatment chemical addition.													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data: Permit Limit	Existing Discharge Data: Existing Effluent Quality[7]	Existing Discharge Data: # of Data Points Detects / Non-Detects	TBELs: Limit	TBELs: Basis	Water Quality Data & WQBELs: Ambient Bkgd. Conc.	Water Quality Data & WQBELs: Projected Instream Conc.	Water Quality Data & WQBELs: WQ Std. or GV	Water Quality Data & WQBELs: WQ Type	Water Quality Data & WQBELs: Calc. WQBEL	Water Quality Data & WQBELs: Basis for WQBEL	ML	Basis for Permit Requirement
	Concentration limits for biochemical oxygen demand are not necessary to maintain the water quality standard for dissolved oxygen, however, monitoring for concentration is being continued for informational purposes. See justification for Dissolved Oxygen. The facility is subject to categorical limits specified in 40 CFR 430 for the Pulp, Paper, and Paperboard Point Source Category. Mass limits are being revised (made less stringent in compliance with Anti-Backsliding regulations) to account for changes in paper product productions. These values have been rounded to two significant figures. See the USEPA Effluent Limitation Guidelines Calculations section for additional information on how these limits were calculated.														
Total Suspended Solids (TSS)	mg/L	Monthly Avg	**Monitor**	450	14/0	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				703.2	-	Monitor 750-1.13
		Daily Max	**Monitor**	966	14/0	-	-								Monitor 750-1.13
	lbs/d	Monthly Avg	910	139	14/0	**1100**	40 CFR 430.123 ELG BCT								TBEL ELG/BCT
		Daily Max	1800	827	14/0	**2200**	40 CFR 430.123 ELG BCT								TBEL ELG/BCT
	The facility is subject to categorical limits specified in 40 CFR 430 for the Pulp, Paper, and Paperboard Point Source Category. Mass limits are being revised (made less stringent in compliance with Anti-Backsliding regulations) to account for changes in paper product productions. See the USEPA Effluent Limitation Guidelines Calculations section for additional information on how these limits were calculated. Mass loading limits have been rounded to two significant figures. Calculated ELG limits (TBELs) are projected to be protective of the narrative water quality standard for suspended solids. Monitoring for concentration is being continued for informational purposes.														
Settleable Solids	mL/L	Monthly Avg	**0.2**	0.23 Actual Avg	14/0	-	-	-	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages				703.2	-	Antibacksliding
		Daily Max	**Monitor**	10 Actual Max	14/0	-	-								Monitor 750-1.13
	Consistent with the previous permit, a monthly average effluent limit of 0.2 mL/L is being specified. This limit is protective of the narrative water quality standards for settleable solids. Monitoring for the daily maximum averaging period is being continued for informational purposes.														
Mercury, Total	ng/L	Daily Max	-	28	1/0	-	-	-	-	0.7	H(FC)	**50**	GLCA	-	DOW 1.3.10
	See Mercury section of this fact sheet.														
Chlorine, Total Residual	µg/L	Monthly Avg	**Monitor**	15 Actual Avg	14/0	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
		Daily Max	**94**	132 Actual Max	14/0	2,000	TOGS 1.3.1E	-	-	5.0	A(C)	1350	703.5	-	Antibacksliding
	lbs/d	Monthly Avg	**Monitor**	0.15 Actual Avg	14/0	-	-	-	-	-	-	-	-	-	Monitor 750-1.13

Outfall #	001	**Description of Wastewater:** Process Wastewater													
		Type of Treatment: Clarification, water treatment chemical addition.													
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		
		Daily Max	**1.2**	1.1 Actual Max	14/0	-	-	-	-	-	-	-	-	-	Antibacksliding
	Chlorine is present in the outfall as sodium hypochlorite is used in the production. The existing limitation is more stringent than the calculated WQBEL based on the revised dilution and will remain due to anti-backsliding. The WQBEL was calculated by multiplying the WQS by the chronic dilution ratio and a decay factor of five. Due to antibacksliding regulations, the existing concentration and mass limits will continue. Concentration units for this parameter have been changed to mg/L for ease of reporting.														
Aluminum, Total	µg/L	Monthly Avg	**2000**	172 Actual Avg	4/1	3,200	TOGS 1.2.1	-	-	-	-	-	-	-	Antibacksliding
		Daily Max	**4000**	360 Actual Max	4/1	6,400	TOGS 1.2.1	-	-	-	-	-	TOGS 1.3.1E	-	Antibacksliding
	lbs/d	Monthly Avg	**25**	1.5 Actual Avg	4/1	-	-	-	-	-	-	-	-	-	Antibacksliding
		Daily Max	**50**	3.8 Actual Max	4/1	-	-	-	-	-	-	-	-	-	Antibacksliding
	Consistent with TOGS 1.3.1E and the receiving waterbody pH, there are no applicable water quality standards for aluminum. Due to antibacksliding regulations, the existing concentration and mass limits will continue. TBELs are protective but backsliding requirements necessitate the continuation of limits. Sampling frequency for both concentration and mass has been reduced to twice per year given the low existing effluent values. A dissolved-to-total translator of 1:1 was assumed. Concentration units for this parameter have been changed to mg/L for ease of reporting.														
Copper, Total	µg/L	Monthly Avg	**Monitor**	6.0 Actual Avg	4/1	1000	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor 750-1.13
		Daily Max	**Monitor**	14 Actual Max	4/1	1900	TOGS 1.2.1	0.33*	0.90	2.9 Dissolved	A(C)	No Reasonable Potential	703.5	-	Monitor 750-1.13
	lbs/d	Monthly Avg	**Monitor**	0.036 Actual Avg	4/1	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
		Daily Max	**2.0**	0.14 Actual Max	4/1	-	-	-	-		-	-	-	-	Antibacksliding
	The projected instream concentration was calculated using the reported max effluent concentration of 14 µg/L, an ambient background concentration of 0.33 µg/L*, a multiplier of 2.3 to account for the number of samples, and the chronic dilution ratio. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation, however, due to antibacksliding regulations, the existing mass loading limit is being carried over. Monitoring for concentration is being continued for informational purposes. Sampling frequency for both concentration and mass has been reduced to twice per year given the low existing effluent values. A dissolved-to-total translator of 1:1 was assumed. Concentration units for this parameter have been changed to mg/L for ease of reporting. *Ambient background concentration obtained from one downstream RIBS station 09-GTCH-60.1 sample collected in 2019. This station is located downstream from the discharge and includes contribution from Dunn Paper. It was used to represent ambient upstream concentration in this conservative analysis because the flow from Dunn Paper is relatively small compared to the flow of the river.														
Zinc, Total	µg/L	Monthly Avg	**Monitor**	141	4/1	610	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor 750-1.13

Outfall #	001	**Description of Wastewater:** Process Wastewater													
		Type of Treatment: Clarification, water treatment chemical addition.													
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		
		Daily Max	**Monitor**	72 Actual Max	4/1	1500	TOGS 1.2.1	4.8*	2.9 Dissolved	0.87	A(C)	No Reasonable Potential	703.5	-	Monitor 750-1.13
	lbs/d	Monthly Avg	**Monitor**	0.70	3/2	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
		Daily Max	**11**	0.71	3/2	-	-	-	-	-	-	-	-	-	Antibacksliding
	The projected instream concentration was calculated using the reported max effluent concentration of 72 µg/L, an ambient background concentration of 4.8 µg/L*, a multiplier of 2.3 to account for the number of samples, and the chronic dilution ratio. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation and therefore no WQBELs are specified but, due to antibacksliding regulations, the mass loading daily maximum limit is being continued. Monitoring for concentration is being continued for informational purposes. Sampling frequency for both concentration and mass has been reduced to twice per year given the low existing effluent values. A dissolved-to-total translator of 1:1 was assumed. Concentration units for this parameter have been changed to mg/L for ease of reporting. *Ambient background concentration (one sample) was obtained from downstream RIBS station 09-GTCH-60.1. This station is located downstream from the discharge and includes contribution from Dunn Paper. It was used to represent ambient upstream concentration in this conservative analysis because the flow from Dunn Paper is relatively small compared to the flow of the river.														
Benzene	µg/L	Daily Max	Monitor	5.0 Actual Max	1/4	-	-	-	0.17	10	H(FC)	No Reasonable Potential	703.5	-	**Discontinued**
	lbs/d	Daily Max	0.17 AL	0.056	2/3	-	-	-	-	-	-	-	-	-	**Discontinued**
	The projected instream concentration was calculated using the reported max effluent concentration of 5.0 µg/L, a multiplier of 2.3 to account for the number of samples, and the HEW dilution ratio. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation, and therefore the concentration monitoring and mass loading action level have been discontinued.														
Toluene	µg/L	Daily Max	Monitor	5.0 Actual Max	1/4	-	-	-	0.21	100	A(C)	No Reasonable Potential	703.5	-	**Discontinued**
	lbs/d	Daily Max	0.23 AL	0.056	2/3	-	-	-	-	-	-	-	-	-	**Discontinued**
	The projected instream concentration was calculated using the reported max effluent concentration of 5.0 µg/L, a multiplier of 2.3 to account for the number of samples, and the chronic dilution ratio. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation, and therefore the concentration monitoring and mass loading action level have been discontinued.														
Xylenes, Sum	µg/L	Daily Max	Monitor	5.0 Actual Max	1/4	-	-	-	0.21	65*	A(C)	No Reasonable Potential	703.5	-	**Discontinued**
	lbs/d	Daily Max	0.19 AL	0.056	2/3	-	-	-	-	-	-	-	-	-	**Discontinued**

Outfall #	001	**Description of Wastewater:** Process Wastewater														
		Type of Treatment: Clarification, water treatment chemical addition.														
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		
	The projected instream concentration was calculated using the reported max effluent concentration of 5.0 µg/L, a multiplier of 2.3 to account for the number of samples, and the chronic dilution ratio. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation, and therefore the concentration monitoring and mass loading action level have been discontinued. *Applies to the sum of 1,2-, 1,3- and 1,4-xylene.														
Phenols, Total	µg/L	Daily Max	Monitor	11 Actual Max	1/4	-	-	-	0.50	1.0	E(FS)	No Reasonable Potential	703.5	-	**Discontinued**
	lbs/d	Daily Max	0.40 AL	0.011	2/3	-	-	-	-	-	-	-	-	-	**Discontinued**
	The projected instream concentration was calculated using the reported max effluent concentration of 11 µg/L, a multiplier of 2.3 to account for the number of samples, and the chronic dilution ratio. A comparison of the project instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation, and therefore the concentration monitoring and mass loading action level have been discontinued.														
Color	Pt-Co	Daily Max	-	-	-	-	-	-	Narrative: *None in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best usages.*				703.2	-	Monitor 750-1.13
	A new monitoring requirement for color using the Platinum-Cobalt scale is being required on a once per day basis for informational purposes.														
Emerging Contaminants															
Notes: See Emerging Contaminant Monitoring above. Influent and effluent samples were analyzed for the 40 PFAS compounds and 1,4-dioxane.															
Perfluoro-butanoic Acid (PFBA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-pentanoic Acid (PFPeA)	ng/L	Daily Max	-	<3.0	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-hexanoic Acid (PFHxA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-heptanoic Acid (PFHpA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														

Outfall #	001	**Description of Wastewater:** Process Wastewater													
		Type of Treatment: Clarification, water treatment chemical addition.													
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		
Perfluoro-octanoic Acid (PFOA)	ng/L	Daily Max	-	<1.5	0/3	**6.7** Action Level	BPJ	-	-	-	-	-	-	-	Action Level
	Due to the potential of PFOS being present in the discharge (see PFOS data below) and the need to protect downstream waters, an action level for both PFOA and PFOS has been established at the human health guidance values, the lowest regulatory value available. See the Emerging Contaminant Monitoring section for more information.														
Perfluoro-nonanoic Acid (PFNA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-decanoic Acid (PFDA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-undecanoic Acid (PFUnA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-dodecanoic Acid (PFDoA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-tridecanoic Acid (PFTriA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-tetradecanoic Acid (PFTeA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-butanesulfonic Acid (PFBS)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-pentanesulfonic Acid (PFPeS)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-hexanesulfonic Acid (PFHxS)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														

Outfall #	001	**Description of Wastewater:** Process Wastewater													
		Type of Treatment: Clarification, water treatment chemical addition.													
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		
Perfluoro-heptanesulfonic Acid (PFHpS)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-octanesulfonic Acid (PFOS)	ng/L	Daily Max	-	1.8 Influent <1.5 Effluent	0/3	**2.7** Action Level	BPJ	-	<1.5	160,000	A(C)	No Reasonable Potential	TOGS 1.1.1 GV	-	Action Level
	Due to the presence of PFOS in the influent, industrial category, and the need to protect downstream waters, an action level has been established at the human health guidance value, the lowest regulatory value available. See the Emerging Contaminant Monitoring section for more information.														
Perfluoro-nonanesulfonic Acid (PFNS)	ng/L	Daily Max	-	3.6 Influent <1.5 Effluent	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-decanesulfonic Acid (PFDS)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-dodecane-sulfonic Acid (PFDoS)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-octane-sulfonamide (PFOSA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
N-methyl Perfluoro-octanesulfon-amidoacetic Acid (NMeFOSAA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
N-ethyl Perfluoro-	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13

Outfall #	001	**Description of Wastewater:** Process Wastewater														
		Type of Treatment: Clarification, water treatment chemical addition.														
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			
octanesulfon-amidoacetic Acid (NEtFOSAA)	Monitoring has been added to support establishment of future standards or TBELs.															
1H,1H,2H,2H-Fluorotelomer Sulfonic Acid (4:2 FTS)	ng/L	Daily Max	-	<6.1	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
1H,1H,2H,2H-Fluorotelomer Sulfonic Acid (6:2 FTS)	ng/L	Daily Max	-	<6.1	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
1H,1H,2H,2H-Fluorotelomer Sulfonic Acid (8:2 FTS)	ng/L	Daily Max	-	<6.1	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
N-ethyl Perfluoro-octanesulfon-amide (NEtFOSA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
N-methyl Perfluoro-octanesulfon-amide (NMeFOSA)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
N-methyl Perfluoro-octanesulfon-amidoethanol (NMeFOSE)	ng/L	Daily Max	-	<15	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
N-ethyl Perfluoro-octanesulfon-amidoethanol (NEtFOSE)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															

Outfall #	001	**Description of Wastewater:** Process Wastewater														
		Type of Treatment: Clarification, water treatment chemical addition.														
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			
9-Chlorohexadeca-fluoro-3-oxanonane-1-sulfonic Acid (9Cl-PF3ONS)	ng/L	Daily Max	-	<1.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
Hexafluoro-propylene Oxide Dimer Acid (HFPO-DA or GenX)	ng/L	Daily Max	-	<6.1	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic Acid (11Cl-PF3OUdS)	ng/L	Daily Max	-	<6.1	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
4,8-Dioxa-3H-perfluorononanoic Acid (ADONA)	ng/L	Daily Max	-	<6.1	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
3-Perfluoropropyl Propanoic Acid (3:3 FTCA)	ng/L	Daily Max	-	<7.5	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
2H,2H,3H,3H-Perfluoro-octanoic Acid (5:3 FTCA)	ng/L	Daily Max	-	<37	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
3-Perfluoroheptyl Propanoic Acid (7:3 FTCA)	ng/L	Daily Max	-	<37	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															
Nonafluoro-3,6-dioxaheptanoic Acid (NFDHA)	ng/L	Daily Max	-	<3.0	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13	
	Monitoring has been added to support establishment of future standards or TBELs.															

Outfall #	001	**Description of Wastewater:** Process Wastewater													
		Type of Treatment: Clarification, water treatment chemical addition.													
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		
Perfluoro-4-methoxy-butanoic Acid (PFMBA)	ng/L	Daily Max	-	<3.0	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro-3-methoxy-propanoic Acid (PFMPA)	ng/L	Daily Max	-	<3.0	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
Perfluoro(2-ethoxyethane)sulfonic Acid (PFEESA)	ng/L	Daily Max	-	<3.0	0/3	-	-	-	-	-	-	-	-	-	Monitor 750-1.13
	Monitoring has been added to support establishment of future standards or TBELs.														
1,4-Dioxane (1,4-D)	µg/L	Daily Max	-	29.6 Max	2/1	-	-	-	-	18,000	A(C)	No Reasonable Potential	TOGS 1.1.1 GV	-	No Limitation or Monitoring
	There is no reasonable potential for discharge to exceed the Class B guidance value in TOGS 1.1.1, as such, no effluent limit or monitoring is specified.														

Outfall 003

Outfall #	003	**Description of Wastewater:** Treated Sanitary Wastewater												
		Type of Treatment: Septic tanks discharging into a leach field (groundwater)												
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality[9]	# 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: Outfall 003 does not have routine sampling requirements and no measurable flow occurred during the application sampling period. Given its function (a leach field for a series of septic tanks) and pursuant to 6 NYCRR Part 702.21, the discharge is not projected to have a water quality impact on either ground or surface water, therefore, no monitoring or effluent limits are required to be protective of water quality standards or human health.															

[9] 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)

USEPA EFFLUENT LIMITATION GUIDELINE (ELG) CALCULATIONS

Appendix Link

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

Outfall	Outfall 001
40 CFR Part/Subpart	§430, Subpart L
Part/Subpart Name	Pulp, Paper, and Paperboard Point Source Category / Tissue, Filter, Non-Woven, and Paperboard from Purchased Pulp

ELG Pollutant	Daily Max Multiplier	Monthly Avg Multiplier	Production Rate (1,000 lbs/d)	Daily Max TBEL (lbs/d)	Monthly Avg. TBEL (lbs/d)
40 CFR Part 430.123 Subpart L – ELGs for Best Conventional Pollutant Control Technology					
BOD_5	11.4	6.25	214	2444	1340
Total Suspended Solids (TSS)	10.25	5.0	214	2198	1072
pH (range)	5.0 - 9.0 S.U.				

Note: The permittee indicated in the NY-2C application and supporting documentation that the facility is covered under the regulations in 40 CFR Part 430 Subpart L based on type of production. Dunn Paper currently has two (2) active paper machines, the first constructed in 1947 and the second in 1997. Effluent Limitation Guidelines for this subcategory were promulgated in 1982, however the 1997 paper machine utilizes the same intake and treatment system and thus is not substantially independent of the existing process for consideration as a New Source under 40 CFR Part 430. Based on this information it is appropriate to calculate the ELGs utilizing BCT standards found in 40 CFR 430.123 for both paper machines.

The production values were obtained from the permittee using Application Supplement M. Also provided in the application, was a certification that the facility did not apply chlorophenolic-containing biocides. Per 40 CFR 430.124, the permit does not contain BAT limitations for pentachlorophenol and trichlorophenol.

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[10] and USEPA interpretation[11] anti-backsliding requirements do not apply should a revision to the final effluent limitation take effect before the scheduled date of compliance for that final effluent limitation.

Antidegradation Policy

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

[10] American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)
[11] 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)

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.

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.

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.

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.

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.

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.

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.