



State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code: 4911	NAICS Code: 221112	SPDES Number:	NY0008010
Discharge Class (CL): 03		DEC Number:	3-3922-00003/00003
Toxic Class (TX): T		Effective Date (EDP):	4/1/2021
Major-Sub Drainage Basin: 13-01		Expiration Date (ExDP):	3/30/2026
Water Index Number: H	Item No.: 864 - 2	Modification Dates (EDPM):	9/2/2021 EDPM
Compact Area: IEC			

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:	Bowline Generating Station, LLC	Attention:	Peter Jones Plant Manager
Street:	140 Samsondale Avenue		
City:	West Haverstraw	State:	NY Zip Code: 10993
Email:	pjones@bowlinepower.com	Phone:	845-786-8001

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL							
Name:	Bowline Generating Station, LLC						
Address / Location:	140 Samsondale Avenue					County:	Rockland
City:	West Haverstraw			State:	NY	Zip Code:	10993
Facility Location:	Latitude:	42 ° 12 ' 19.7	" N	& Longitude:	73 ° 58 ' 0.2	" W	
Primary Outfall No.:	001	Latitude:	42 ° 12 ' 10.2	" N	& Longitude:	73 ° 57 ' 20.7	" W
Wastewater Description:	Noncontact Cooling Water	Receiving Water:	Hudson River	NAICS:	221112	Class:	SB Standard: SB

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)
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Rockland County DOH

Permit Administrator:	Ellen Hart	
Address:	21 S. Putt Corners Rd New Paltz, NY 12525	
Signature	Date	

SUMMARY OF ADDITIONAL OUTFALLS

Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
002	Noncontact cooling water	221112	41 ° 12 ' 16.7 " N	73 ° 57 ' 22.9 " W
Receiving Water: Hudson River				Class: SB
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
003	Stormwater Runoff (Oil Tank Farm)	-	41 ° 12 ' 15.2 " N	73 ° 57 ' 56.9 " W
Receiving Water: Minisceongo Creek				Class: SC / C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
004	Screen Wash Return Water	-	41 ° 12 ' 9.5 " N	73 ° 57 ' 49.8 " W
Receiving Water: Hudson River				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
006	Stormwater	-	41 ° 12 ' 9.7 " N	73 ° 57 ' 49.2 " W
Receiving Water: Hudson River				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
007	Stormwater	-	41 ° 12 ' 14.8 " N	73 ° 57 ' 45.5 " W
Receiving Water: Hudson River				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
008	Stormwater	-	41 ° 12 ' 13.0 " N	73 ° 57 ' 37.0 " W
Receiving Water: Hudson River				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
009	Stormwater	-	41 ° 12 ' 12.2 " N	73 ° 58 ' 9.8 " W
Receiving Water: Minisceongo Creek				Class: SC / C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
010	Stormwater	-	41 ° 12 ' 12.9 " N	73 ° 58 ' 6.3 " W
Receiving Water: Minisceongo Creek				Class: SC / C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
011	Stormwater	-	41 ° 14 ' 13.3 " N	73 ° 58 ' 5.4 " W
Receiving Water: Minisceongo Creek				Class: SC / C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
012	Stormwater	-	41 ° 12 ' 14.1 " N	73 ° 58 ' 2.1 " W
Receiving Water: Minisceongo Creek				Class: SC / C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
013	Stormwater	-	41 ° 12 ' 15.1 " N	73 ° 57 ' 58.6 " W
Receiving Water: Minisceongo Creek				Class: SC / C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
014	Stormwater	-	41 ° 12 ' 15.9 " N	73 ° 57 ' 56.5 " W
Receiving Water: Minisceongo Creek				Class: SC / C

Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
015	Stormwater	-	41 ° 12 ' 21.4 " N	73 ° 57 ' 55.4 " W
Receiving Water: Minisceongo Creek				Class: SC / C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
016	Stormwater	-	41 ° 12 ' 22.7 " N	73 ° 57 ' 55.8 " W
Receiving Water: Minisceongo Creek				Class: SC / C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
017	Stormwater	-	41 ° 12 ' 23.4 " N	73 ° 57 ' 57.0 " W
Receiving Water: Minisceongo Creek				Class: SC / C

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DEFINITIONS

TERM	DEFINITION
7-Day Geo Mean	The highest allowable geometric mean of daily discharges over a calendar week.
7-Day Average	The average of all daily discharges for each 7-days in the monitoring period. The sample measurement is the highest of the 7-day averages calculated for the monitoring period.
12-Month Rolling Average (12 MRA)	The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by the number of months for which samples were collected in the 12-month period.
30-Day Geometric Mean	The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Action Level	Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and department review to determine if numerical effluent limitations should be imposed.
Compliance Level / Minimum Level	A compliance level is an effluent limitation. A compliance level is given when the water quality evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level. The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytical method as given in 40 CFR Part 136, or otherwise accepted by the 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	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
001, 002	Noncontact Cooling Water	Hudson River	EDPM	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	Monitor	MGD	-	-	Daily	Calculated		X	a
Flow	Daily Maximum	Monitor	MGD	-	-	Daily	Calculated		X	a
pH	Daily Minimum	6.0	SU	-	-	Continuous	Recorder		X	l
	Daily Maximum	9.0	SU	-	-	Continuous	Recorder		X	l
Temperature	Monthly Average	Monitor	°F	-	-	Continuous	Recorder		X	b
Temperature	Daily Maximum	102	°F	-	-	Continuous	Recorder		X	b
Discharge-Intake Temperature Difference	Monthly Average	Monitor	°F	-	-	Continuous	Recorder		X	b
Discharge-Intake Temperature Difference	Daily Maximum	23	°F	-	-	Continuous	Recorder		X	b
Net Discharge of Heat	Monthly Average	Monitor	BTU/hr.	-	-	Daily	Calculation		X	c
Net Discharge of Heat	Daily Maximum	5.8x10 ⁹	BTU/hr.	-	-	Daily	Calculation		X	c

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
01A, 02A	Boiler Blowdown	Hudson River via Outfalls 001/002	EDPM	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	Monitor	GPD	-	-	Monthly	Instantaneous		X	d
Flow	Daily Maximum	Monitor	GPD	-	-	Monthly	Instantaneous		X	d
Total Suspended Solids	Monthly Average	30	mg/L	-	-	Monthly	Grab		X	d
Total Suspended Solids	Daily Maximum	50	mg/L	-	-	Monthly	Grab		X	d
Oil & Grease	Daily Maximum	15	mg/L	-	-	Annual	Grab		X	d
ACTION LEVEL PARAMETERS	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
Copper, Total	Daily Maximum	1.0	mg/L	-	-	Following Startup	4-hr. Composite		X	d,e,g
Iron, Total	Daily Maximum	1.0	mg/L	-	-	Following Startup	4-hr. Composite		X	d,e,g

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
01C, 02C	Units 1 & 2 Oil Water Separators	Hudson River via Outfalls 001/002	EDPM	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Oil & Grease	Daily Maximum	15	mg/L	-	-	Weekly	Grab		X	

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
01E	Waste Treatment Facility – Low Volume Waste	Hudson River via Outfalls 001/002	EDPM	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	Monitor	GPD	-	-	Continuous	Recorder		X	h
Flow	Daily Maximum	Monitor	GPD	-	-	Continuous	Recorder		X	h
pH	Daily Minimum	Monitor	SU	-	-	Continuous	Recorder		X	
	Daily Maximum	Monitor	SU	-	-					
Total Suspended Solids	Monthly Average	30	mg/L	-	-	Batch	Grab		X	h
Total Suspended Solids	Daily Maximum	50	mg/L	-	-	Batch	Grab		X	h
Oil & Grease	Monthly Average	Monitor	mg/L	-	-	Batch	Grab		X	h
Oil & Grease	Daily Maximum	15	mg/L	-	-	Batch	Grab		X	h
Iron, Total	Monthly Average	Monitor	mg/L	-	-	Batch	Grab		X	h
Iron, Total	Daily Maximum	1.0	mg/L	-	-	Batch	Grab		X	h

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
01F	Waste Treatment Facility – Metal Cleaning Wastewater	Hudson River via Outfalls 001/002	EDPM	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	Monitor	GPD	-	-	Continuous	Recorder		X	i
Flow	Daily Maximum	Monitor	GPD	-	-	Continuous	Recorder		X	i
pH	Daily Minimum	Monitor	SU	-	-	Continuous	Recorder		X	
	Daily Maximum	Monitor	SU	-	-					
Total Suspended Solids	Monthly Average	30	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Total Suspended Solids	Daily Maximum	50	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Oil & Grease	Monthly Average	Monitor	mg/L	-	-	Batch	Grab		X	i
Oil & Grease	Daily Maximum	15	mg/L	-	-	Batch	Grab		X	i
Chromium, Hexavalent	Monthly Average	0.050	mg/L	-	-	Batch	Grab		X	i
Chromium, Hexavalent	Daily Maximum	0.10	mg/L	-	-	Batch	Grab		X	i
Chromium, Total	Monthly Average	0.50	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Chromium, Total	Daily Maximum	1.0	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Copper, Total	Monthly Average	Monitor	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Copper, Total	Daily Maximum	1.0	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Iron, Total	Monthly Average	Monitor	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Iron, Total	Daily Maximum	1.0	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Manganese, Total	Monthly Average	1.0	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Manganese, Total	Daily Maximum	2.0	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Nickel, Total	Monthly Average	1.0	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Nickel, Total	Daily Maximum	2.0	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Vanadium, Total	Monthly Average	3.0	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Vanadium, Total	Daily Maximum	6.0	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Zinc, Total	Monthly Average	0.50	mg/L	-	-	Batch	24-Hr. Comp.		X	i
Zinc, Total	Daily Maximum	1.0	mg/L	-	-	Batch	24-Hr. Comp.		X	i

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
01G, 02G	Boiler Seal Trough Water	Hudson River via Outfalls 001/002	EDPM	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	Monitor	GPD	-	-	Quarterly	Estimate		X	
Flow	Daily Maximum	Monitor	GPD	-	-	Quarterly	Estimate		X	
Total Suspended Solids, Net	Monthly Average	30	mg/L	-	-	Quarterly	Grab		X	m
Total Suspended Solids, Net	Daily Maximum	50	mg/L	-	-	Quarterly	Grab		X	m
Oil & Grease	Daily Maximum	15	mg/L	-	-	Quarterly	Grab		X	
Iron, Net	Daily Maximum	1.0	mg/L	-	-	Quarterly	Grab		X	m

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
003	Stormwater Runoff (Oil Tank Farm)	Minisceongo Creek	EDPM	ExDP

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

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
011, 012, 017	Stormwater Runoff (Group II)	Minisceongo Creek	EDPM	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Monthly Average	Monitor	GPD	-	-	Monthly	Estimate		X	
Flow	Daily Maximum	Monitor	GPD	-	-	Monthly	Estimate		X	
Total Suspended Solids	Daily Maximum	50	mg/L	-	-	Monthly	Grab		X	
Oil & Grease	Daily Maximum	15	mg/L	-	-	Monthly	Grab		X	

OUTFALL	DESCRIPTION	RECEIVING WATER	MONITORING REQUIREMENTS
004	Screen Wash Return Water	Hudson River	No Monitoring Required
006-009, 010, 013, 015, 015, 016	Stormwater Runoff	Minisceongo Creek	No Monitoring Required

FOOTNOTES:

a. Daily total flow shall be calculated on the basis of circulating water pump operation hourly averages. These hourly average values shall be tabulated for each month and attached to the monthly Discharge Monitoring Reports (DMR).

b. The intake and discharge temperatures may be recorded by a data logger, instruments, or computers. The Discharge-Intake Temperature Difference shall be calculated as an hourly average based upon readings taken every fifteen (15) minutes. These hourly average values shall be tabulated for each month and attached to the monthly Discharge Monitoring Reports (DMR). The hourly average discharge temperature shall be the average of the temperatures measured by temperature probes in Outfalls 001 and 002, respectively, and shall not exceed a 23°F rise over the hourly average temperature of the intakes for the corresponding hour. These limitations may be exceeded during periods when one or more condensing units are operating with only one or more circulating water pumps per unit out of service due to pump breakdown or routine pump maintenance. In the event of a pump breakdown, the permittee shall take corrective action as soon as possible. Where possible, routine pump maintenance resulting in these limitations being exceeded should be avoided from May through September. For each occurrence of these limitations being exceeded, the permittee shall indicate on the Discharge Monitoring Report (DMR) Form (1) which circulating water pumps, if any, were not in operation (2) the dates and time such pumps were not operating (3) the reasons for such pumps not operating and (4) the period(s) (date and times) during which these limitations were exceeded. In no case shall these limitations be exceeded more than 10 days in any calendar month or more than 10% of the time in any calendar year.

c. The net rate of addition of heat to the Hudson River of combined discharges 001 and 002 shall not exceed 1.46 billion Kcal/Hour (5.8 billion BTU/hr.). Daily maximum net heat addition shall be calculated and reported.

d. Boiler blowdown will be sampled prior to quenching with river water.

e. 4-hour composite sampling of the boiler blowdown is to commence immediately upon the change of routing from the equalization tank to the main circulating water system.

f. Permittee may request a reduction in monitoring frequency following completion of 6 months of monitoring data.

g. The term 'start-up' means resuming operation after the boiler has been completely drained and the unit has been shut down. It does not include situations where the unit is restarted after shut-down if the boiler has not been completely drained.

h. Outfall 01E wastewater includes auxiliary boiler blowdown and demineralizer waste from the #1 pump station.

i. Outfall 01F wastewater includes air preheater wash wastewater, auxiliary boiler blowdown, units 1 and 2 boiler blowdown from the #1 pump station.

j. Footnote j has been discontinued since the permittee has installed continuous pH monitoring.

k. Footnote k has been discontinued since the permittee has installed continuous pH monitoring.

l. Continuous pH monitoring may be recorded by a data logger, instruments, or computers and the minimum and maximum pH shall be calculated as an hourly average based upon readings taken every fifteen (15) minutes. The hourly discharge shall be the average of the values measured by the probes in Outfalls 001 and 002, respectively, and shall not be less than 6.0 S.U. or greater than 9.0 S.U. over the hour, and shall be reported on monthly DMRs. The permittee shall operate the pH monitoring equipment at all times except for periods of calibration checks, span adjustments, preventative maintenance, and periods of unavoidable malfunction. In the event of equipment breakdown, or unavoidable malfunction, the Permittee shall take corrective action as soon as possible. For each occurrence where the pH monitoring equipment is not functioning and valid data is not being recorded, the Permittee shall commence with grab samples in accordance with 40 CFR 136, written records of the results retained, and reported on the monthly DMRs. The Permittee shall indicate on the DMR form (1) the date(s) and time(s) the pH monitoring equipment was not operating, and (2) the reasons the pH monitoring equipment

was not operating. The total time during which the pH values are outside the range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and no individual excursion from the range of pH values shall exceed 60 minutes (see 40 CFR 401.17). All grab sampling shall be performed in accordance with 40 CFR 136, written records of the results retained, and reported on the monthly DMRs.

m. Net calculations for iron and total suspended solids shall be the difference between ambient Hudson River (intake) water and effluent discharge from Outfall 01G and Outfall 02G.

ADDITIONAL REQUIREMENTS:

1. Collected screenings, sludges, and other solids and precipitates separated from the Permittee's discharges and/or intake water authorized by this permit shall be disposed of in such a manner as to prevent entry of such materials into navigable waters or the tributaries. Any fish, shellfish, or other organisms collected or trapped as a result of intake water screenings or treatment may be returned to the water body habitat, together with associated solids.
2. The permittee shall submit on an annual basis to the NYSDEC at its offices in White Plains and Albany a month-by-month report of daily operating data in EXCEL[®] or other acceptable electronic format, by the 28th of January of the following year, that includes the following:
 - a. Daily minimum, maximum and average station electrical output shall be determined and logged.
 - b. Daily total water use shall be directly or indirectly measured or calculated and logged.
 - c. Temperature of the intake and discharges shall be measured and recorded continuously. Daily maximum and average intake and discharge temperatures shall be logged.
 - d. One copy of each annual report must be sent to the NYSDEC; Division of Water, Bureau of Watershed Compliance Programs; in Albany, New York; and a second copy must be sent to NYSDEC; Regional Water Engineer, Region 3; in White Plains, New York.
3. Discharge of blowdown during boiler start-up shall be routed to the wastewater treatment plant. No wastewater shall be routed to the main circulating water system until parameters have fallen below permit limits.
4. Nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act.
5. The thermal discharge from the facility shall assure the protection and propagation of a balanced indigenous population of shellfish, fish and wildlife in and on the Hudson River in accordance with 6 NYCRR 704.1(a). The permittee's thermal discharge may not exceed 6 NYCRR 704.2(b)(5) except within a mixing zone of approximately 36 acres of surface area with a maximum length and width of 2,266 ft and 800 ft, respectively.

OTHER WATER QUALITY REQUIREMENTS

1. There shall be no net addition of PCBs by this facility's discharges to the Hudson River.
2. Notwithstanding any other requirements in this permit, the permittee shall also comply with all applicable Water Quality Regulations promulgated by the Interstate Environmental Commission (IEC), which are in effect at the time of this permit's issuance, including Sections 1.01 and 2.05 (f) as they relate to oil and grease.
3. It is recognized that influent quality changes, equipment malfunction, acts of God, or other circumstances beyond the control of the Permittee may, at times, result in effluent concentrations exceeding the permit limitations despite the exercise of appropriate care and maintenance measures, and corrective measures by the permittees. The permittee may come forward to demonstrate to the NYSDEC that such circumstances exist in any case where effluent concentrations exceed those set forth in this permit. The NYSDEC, however, is not obligated to wait for, or solicit, such demonstrations prior to the initiation of any enforcement proceedings, nor must it accept as valid on its face the statement made in any such demonstration.
4. All chemicals listed and/or referenced in the permit application, and which have been subsequently approved by the Department, are approved for use. If use of new biocides, corrosion control chemicals or water treatment chemicals is intended, application must be made and approval granted prior to use. No use will be approved that

would cause exceedance of state water quality standards.

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BIOLOGICAL REQUIREMENTS

All submissions under this section should provide:

- One (1) paper copy and an electronic copy to the Energy Unit Leader¹;
- One (1) copy of the cover letter to the Division of Water State Pollution Discharge Elimination System (SPDES) Compliance Information Section; and
- One (1) copy of the cover letter to the Regional Water Engineer; unless otherwise noted.

Variable Speed Capabilities

1. By EDP the permittee must continue to operate the installed variable speed drive pumps.

Coarse Barrier Net

2. The permittee must annually install a coarse mesh barrier net (nominal 9.5mm mesh) between 15 October and 31 May to minimize impingement following the procedures contained in the "Standard Operating Procedures for the Bowline Barrier Net Operations" (Final SOP dated October 2012). Prior approval by the Department is required for any modifications to the procedures contained in the Final October 2012 SOP.

Generating Capacity Limit and Reduced Cooling Water Flow

3. By the effective date of the permit (EDP), the facility shall be operated at less than 15 percent of its full load electric generating capacity factor. This condition shall be measured as a five-year average following the EDP.
4. By the effective date of the permit (EDP), cooling water flow volume will continue to be reduced through flow minimization by actively managing flow to utilize the minimum volume of water needed to cool condensers and comply with thermal limits of this permit.

Performance Requirements

5. The permittee must reduce entrainment of all life stages of fish at the Bowline Generating Station (Units 1 and 2) by at least 75 percent. Percent reductions must be calculated from the calculation baseline for this facility as defined in NYSDEC's CP-52 dated July 2011. Compliance will be assessed based upon a three-year cumulative average of the percent reductions and include all technologies, operational measures, and an intake location effect of 34%. Compliance calculations shall be made according to the Technology and Compliance Assessment submitted and approved December 2015.
6. The permittee must annually reduce the impingement mortality of all life stages of fish at the Bowline Generating Station (Units 1 and 2) by at least 95 percent. Percent reductions must be calculated from the calculation baseline for this facility.

Compliance Monitoring and Additional Reporting Requirements

7. The permittee must submit status reports to the NYS DEC Energy Unit Leader at EDP + 2.5 years and every two years thereafter. At a minimum, these status reports must include a description of the operational status of the facility during the preceding two years and compliance with Biological Requirements 1 through 6 of this permit.
8. By EDP + 4.5 years and every 5 years thereafter, the permittee must submit, to the NYS DEC Energy Unit Leader, a report that includes:
 - a. description and detailed analysis of the cumulative reductions in impingement mortality and entrainment achieved during the first four years of the permit term. This analysis shall include, at a minimum, a description of the methodology for assessing the efficacy of technologies and operational measures, and using the most recent biological data collected at the facility; and
 - b. detailed analysis of technologies and/or operational measures available at that time, which have been demonstrated to, or have the potential to, further reduce fish mortality at the Bowline Generating Station (Units 1 and 2). The list of technologies and/or operational measures included in this analysis must be selected with the concurrence of the Department.

10. Modification of the facility cooling water intake must not occur without prior Department approval. The permittee must submit written notification, including detailed descriptions and plans, to the NYS DEC Energy Unit Leader; the Director of the Bureau of Water Compliance Program; and both the Regional Permit Administrator and the Regional Water Engineer, Region 3, at least 60 days prior to any proposed change which would result in the alteration of the permitted operation, location, design, construction or capacity of the cooling water intake structure. The permittee must submit with the written notification a demonstration that the change reflects the best technology available for minimizing adverse environmental impacts pursuant to 6 NYCRR Part 704.5 and Section 316(b) of the Clean Water Act. As determined by NYS DEC, a permit modification application in accordance with 6 NYCRR 621 may be required.

11. The permittee must maintain records of all data, reports and analysis pertaining to compliance with 6 NYCRR Part 704 and Section 316(b) CWA for a period no less than 10 years from the effective date of this permit.

12. SCHEDULE OF COMPLIANCE

a. The permittee shall comply with the following schedule:

Action Code	Outfall Number(s)	Compliance Action	Due Date
	N/A	Operate variable speed capabilities pumps (Biological Requirement 1) Deploy coarse mesh barrier net (Biological Requirement 2) Operate at less than 15% generating capacity (Biological Requirement 3) Minimize cooling water flow (Biological Requirement 4) Reduce entrainment of fish by 75% (Biological Requirement 5) Reduce impingement mortality of fish by 95% (Biological Requirement 6) Submit status reports (Biological Requirement 7) 1. Submit description of cumulative reductions in impingement and entrainment and a detailed analysis of measures to further reduce impingement and entrainment. (Biological Requirement 8)	EDP October 15-May 31 annually EDP EDP Annually Annually EDP + 2.5 and every two years thereafter EDP + 4.5 years and every five years thereafter

The above compliance actions are one time requirements. The permittee shall comply with the above compliance actions to the Department's satisfaction once. When this permit is administratively renewed by NYS DEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT", the permittee is not required to repeat the submission. The above due dates are independent from the effective date of the permit stated in the letter of "SPDES NOTICE/RENEWAL APPLICATION/PERMIT."

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. Annually, the permittee **shall review** and modify the BMP plan 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 that the annual review has been completed in accordance with the Schedule of Submittals. 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 permittee shall consider relative toxicity of the pollutant 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 [SPDES Application Procedures and Forms - NYSDEC](#)) or that are required to be monitored for by the SPDES permit.
4. **13 Minimum BMPs:** Whenever the potential for a release of pollutants to State waters is determined to be present, the permittee shall identify BMPs that have been established to prevent or minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider good industry practices and, where appropriate, structural measures such as secondary containment and erosion/sediment control devices and practices. USEPA guidance for development of stormwater elements of the BMP is available in *Developing Your Stormwater Pollution Prevention Plan A Guide for Industrial Operators*, February 2009, EPA 833-B-09-002. As a minimum, the plan shall include the following BMPs:

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

BMPs FOR INDUSTRIAL FACILITIES (continued)

5. **Stormwater Discharges from Construction Activity to Surface Waters** – Pursuant to Section 402 of the Clean Water Act (CWA), and 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), stormwater discharges from certain construction activities (including discharges through a municipal separate storm sewer system) are unlawful unless they are authorized by a SPDES permit. Prior to initiating such construction associated with this facility, the permittee must obtain coverage under the current version of the SPDES General Permit for Stormwater Discharges from Construction Activity (CGP) or a separate individual stormwater construction SPDES permit, if not eligible for the CGP.
6. **Required Sampling For “Hot Spot” Identification** – The permittee’s 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). The permittee must eliminate stormwater discharges from handling and storage areas where practical.
 - A. **Spill Cleanup** – The permittee must remove all spilled or leaked substances 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 permittee must thoroughly clean containment systems 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 permittee must completely flush the affected area with clean water three times and properly dispose of the water removed after each flushing 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** – The permittee must remove stormwater 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. The permittee shall maintain a logbook on site noting the date, time and personnel supervising each discharge.
 - 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:

BMPs FOR INDUSTRIAL FACILITIES (continued)

(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.

DISCHARGE NOTIFICATION REQUIREMENTS

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

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

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

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

MONITORING LOCATIONS

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



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(f) |
| 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 series.
- 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 under the current permit. The 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: [SPDES Permitting of Water Treatment Chemicals](#).

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- A. The permittee shall retain the monitoring information required by this permit for a period of at least five years from the date of the sampling.
- B. Discharge Monitoring Reports (DMRs): The permittee shall submit completed DMR forms for each 1 month reporting period in accordance with the DMR Manual available on DEC's website.

The permittee must submit DMRs electronically using the electronic reporting tool (NetDMR) specified by DEC. Instructions on the use of NetDMR can be found at: [How To Complete And Submit Discharge Monitoring Reports \(DMRs\) - NYSDEC](#). **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 electronically 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
 spdesapp@dec.ny.gov
 Phone: (518) 402-8111

Department of Environmental Conservation
 Regional Water Engineer, Region 3
 220 White Plains Road, Suite 110, Tarrytown, New York, 10591,
 dow.r3@dec.ny.gov
 Phone: (914) 803-8157

- D. Schedule of Additional Submittals:

The permittee shall electronically 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 & 002	<p><u>EMERGING CONTAMINANT SHORT-TERM MONITORING</u> The permittee shall collect grab samples of both the influent and effluent from the facility's treatment system(s) associated with the identified outfall for 1,4-Dioxane (1,4-D) utilizing EPA Method 8270D SIM or 8270E SIM. The samples must represent normal discharge conditions and treatment operations and shall be obtained on a monthly basis for at least 3 consecutive months. The results shall be reported through the "Emerging Contaminants Survey for Industrial Facilities" found at: Emerging Contaminants In NY's Waters - NYSDEC.</p> <p>The permittee shall initiate track down of potential sources by completing the "Emerging Contaminants Investigation Checklist for Industrial Facilities" available at the above link. The DEC may periodically request updates or additional monitoring to check progress on track down investigations. Elements of the checklist may be used as permit conditions in future permit modifications.</p>	<p>EDP or EDPM + 6 months</p> <p>Within 90 days of DEC written notification</p>

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

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

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

DRAFT

SPDES Permit Fact Sheet

Bowline Generating Station, LLC

Bowline Generating Station, LLC

NY0008010



Contents

Summary of Permit Changes	3
Administrative History	3
Facility Information.....	3
Permit Requirements	4
Emerging Contaminant Monitoring	4
Schedule of Additional Submittals	4
Biological Requirements - Schedule of Compliance.....	4
Appendix: Regulatory and Technical Basis of Permit Authorizations.....	5
Regulatory References.....	5
Outfall and Receiving Water Information	5
Interstate Water Pollution Control Agencies	5
Existing Effluent Quality.....	6
Permit Requirements.....	6

Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) permittee-initiated permit modification has been drafted for the Bowline Generating Station, LLC. The changes to the permit are summarized below:

- Updated the entrainment reduction from 80% to 75%, in accordance with CP-52/Best Technology Available (BTA)
- Added short-term monitoring program for emerging contaminants
- Updated permittee and facility names, in accordance with the permit transfer effective December 20, 2021

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

- 4/1/2021 The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 3/31/2026. The 2021 permit has formed the basis of this permit.
- 9/19/2025 The Bowline Generating Station, LLC submitted a timely and sufficient renewal application.
- 10/31/2025 The Bowline Generating Station, LLC submitted a NY-2C permit application to request a permittee-initiated modification to reduce the entrainment reduction from 80% to 75%.

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

Facility Information

Bowline Point Generating Station (Bowline) is an industrial facility (SIC code 4911) located on the western shore of the Hudson River in Haverstraw, approximately 37.5 miles north of the Battery at the southern tip of Manhattan. The facility is a steam turbine power plant consists of two generating units that burn either natural gas or #6 oil to produce a combined output of approximately 1,145 MW. Unit 1 began operation in September 1972 and Unit 2 began operation in May 1974. Bowline uses a once-through cooling system to withdraw up to 1,106 million gallons per day (MGD) of cooling water from Bowline Pond, an embayment of the Hudson River. Cooling water is withdrawn through a shoreline-oriented intake structure, consisting of trash racks with 3.5 inch openings between the bars, six conventional traveling screens with 3/8 inch mesh, a fish return system and six circulating pumps. After flowing through the cooling system, heated water is discharged into the Hudson River through a subsurface multiport diffuser located approximately 1,400 ft off shore in about 14 feet of water.

Bowline has implemented all BTA measures available at the Bowline facility, including installation and operation of variable speed drives on circulating water pumps, annual installation of a coarse mesh barrier net between October 15th and May 3 Pt, a 15% limit on the generation capacity factor average measured over five years, and reducing cooling water flow volume through flow minimization.

The DEC Commissioner's Policy CP-52/Best Technology Available (BTA) for Cooling Water Intake Structures states that "An existing electric generating facility operated at less than fifteen (15) percent of its electric generating capacity over a current 5-year averaging period will be subject to the impingement mortality reduction performance goals of this policy and may be exempt from meeting the entrainment performance goal of this policy provided that the facility is operated in a manner that minimizes the potential for entrainment. For these facilities, site-specific performance goals for entrainment will be determined by the Department on a case-by-case, BPJ basis." The Department (or DEC?) will exercise its discretion to apply this provision of CP-52 and allow the Bowline facility an alternate entrainment reduction of 75% from calculation baseline.

Permit Requirements

Emerging Contaminant Monitoring

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

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

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

[Appendix Link](#)

Schedule of Additional Submittals

The following has been added:

Emerging Contaminant Short-term Monitoring

Please see [above discussion](#) of emerging contaminants.

Biological Requirements - Schedule of Compliance

The following has been modified:

The original 80% entrainment reduction has been changed to, "Reduce entrainment of fish by 75% (Biological Requirement 5)."

Appendix: Regulatory and Technical Basis of Permit Authorizations

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

Regulatory References

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

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

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

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

Outfall and Receiving Water Information

Interstate Water Pollution Control Agencies

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

control agency, to include any applicable effluent standards or water quality standards (WQS) promulgated by that interstate agency.

Existing Effluent Quality

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

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 law¹ and USEPA interpretation² anti-backsliding requirements do not apply should a revision to the final effluent limitation take effect before the scheduled date of compliance for that final effluent limitation.

Antidegradation Policy

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

Effluent Limitations

In developing a permit, the DEC determines the technology-based effluent limitations (TBELs) and then evaluates the water quality expected to result from technology controls to determine if any exceedances of water quality criteria in the receiving water might result. If there is a reasonable potential for exceedances of water quality criteria to occur, water quality-based effluent limitations (WQBELs) are developed. A WQBEL is designed

¹ American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

² 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)

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.

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 6 NYCRR 702.9. TOGS 1.3.2 describes the procedures which should be followed when determining whether to include toxicity testing in a SPDES permit and how to implement a toxicity testing program. Per TOGS 1.3.2, WET testing may be required when any one of the following seven criteria are applicable:

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

Minimum Level of Detection

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

Monitoring Requirements

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

Action Levels

As defined in 6 NYCRR 750-1.2(a)(2), when used in a SPDES permit, an Action Level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee monitoring and DEC review to determine if numerical effluent limitations should be imposed.

The application of an Action Level is provided in TOGS 1.2.1. If the Action Level is exceeded, the permittee is required to conduct confirmatory monitoring. If Action Levels are routinely or excessively exceeded, they will be reconsidered and adjusted or replaced by limits in accordance with the Environmental Benefit Permit Strategy (EBPS). An Action Level is not a limit, and an exceedance does not constitute a permit violation unless the confirmatory sampling is not performed in accordance with the permit requirements.

Other Conditions

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 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, 2020 and 2025; 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 DEC determined that the MDV is consistent with the protection of public health, safety, and welfare. During the effective period of the 2025 MDV, any increased risks to human health are mitigated by fish consumption advisories issued periodically by the NYSDOH.

DOW 1.3.10 explains which surface water permittees are eligible for the MDV.

[Optional – If Hg limitations are less stringent] There have been a number of changes to DOW 1.3.10, December 2020 (e.g., the criteria for mercury sources, the MMP Decision tree, and the MMPs themselves) which could result in less stringent effluent limitations. There are now criteria to determine if a facility has sources of mercury. Additionally, the types of MMPs have been restructured. MMP Type IV is appropriate for facilities that are not sources of mercury. A similar MMP type was not included in the 2010 or 2015 versions of DOW 1.3.10. DOW 1.3.10, Figure 1, is a decision tree, which includes the criteria used to determine if a facility has source of mercury and which MMP is appropriate for a facility.

Schedules of Compliance

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

Emerging Contaminants

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. Based on available research, water quality assessments for 1,4-D will follow existing WQBEL development. PFOA and PFOS 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](#).

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.