



Department of  
Environmental  
Conservation

# State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	<b>3241</b>	NAICS Code:	<b>327310</b>	SPDES Number:	<b>NY0006874</b>
Discharge Class (CL):	<b>01</b>	DEC Number:	<b>4-1926-00021/00034</b>		
Toxic Class (TX):	<b>T</b>	Effective Date (EDP):	<b>EDP</b>		
Major-Sub Drainage Basin:	<b>13 - 01</b>	Expiration Date (ExDP):	<b>ExDP</b>		
Water Index Number:	<b>H-184-1</b>	Item No.:	<b>863 - 1</b>	Modification Dates (EDPM):	
Compact Area:	<b>-</b>				

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. ' 1251 et.seq.)

PERMITTEE NAME AND ADDRESS						
Name:	<b>Holcim (US) Inc.</b>			Attention:	<b>Sr. Manager, Closed Sites, Real Estate, and Remediation</b>	
Street:	<b>1435 Ford Avenue</b>					
City:	<b>Alpena</b>			State:	<b>MI</b>	Zip Code: <b>49707</b>
Email:	<a href="mailto:travis.weide@holcim.com">travis.weide@holcim.com</a>			Phone:	<b>989-916-9637</b>	

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL											
Name:	<b>Holcim (US) Inc. – Catskill Plant</b>										
Address / Location:	<b>134 Embought Road</b>						County:	<b>Greene</b>			
City:	<b>Catskill</b>				State:	<b>NY</b>		Zip Code:	<b>12414</b>		
Facility Location:	Latitude:	<b>42</b> °	<b>9</b> '	<b>56</b> " N	& Longitude:	<b>73</b> °	<b>54</b> '	<b>34</b> " W			
Primary Outfall No.:	<b>008</b>	Latitude:	<b>42</b> °	<b>10</b> '	<b>11</b> " N	& Longitude:	<b>73</b> °	<b>54</b> '	<b>50</b> " W		
Wastewater Description:	<b>Treated Landfill Leachate and Stormwater</b>	Receiving Water:	<b>Tributary of Post Creek</b>			NAICS:	<b>327310</b>	Class:	<b>C</b>	Standard:	<b>C</b>

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

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

**DISTRIBUTION:**

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

Permit Administrator:		
Address:	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		
<b>001</b>	<b>Stormwater Overflow from Swan Pond</b>	<b>327310</b>	<b>42 °</b>	<b>9 ' 45 "</b>	<b>N</b>	<b>73 °</b>	<b>54 ' 30 "</b>	<b>W</b>
Receiving Water: <b>Hudson River</b>						Class: <b>A</b>		
Outfall	Wastewater Description	NAICS Code	Outfall Latitude			Outfall Longitude		
<b>006</b>	<b>Stormwater Overflow from Pond 006</b>	<b>327310</b>	<b>42 °</b>	<b>10 ' 2.6 "</b>	<b>N</b>	<b>73 °</b>	<b>54 ' 31 "</b>	<b>W</b>
Receiving Water: <b>Internal to Outfall 008 or Drainage Swale Tributary to Hudson River</b>						Class: <b>A</b>		

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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 – 008

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
008	Treated Landfill Leachate and Stormwater	Tributary of Post Creek	EDP	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	
Flow	Daily Maximum	Monitor	GPD			Continuous	Recorder		X	
pH	Daily Average	6.5 - 8.5	SU			1/month	Grab		X	
Total Suspended Solids (TSS)	Daily Maximum	20	mg/L			1/month	Grab		X	
Settleable Solids	Daily Maximum	Monitor	mL/L			1/month	Grab		X	
Oil and Grease	Daily Maximum	Monitor	mg/L			1/month	Grab		X	
Total Mercury	Daily Maximum	50	ng/L			1/month	Grab		X	2, 3
Total Selenium	Daily Maximum	4.6	µg/L			1/month	Grab		X	2

WHOLE EFFLUENT TOXICITY (WET) TESTING	Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote		0.3	TUa	1/quarter	See footnote		X	1, 4
WET - Acute Vertebrate	See footnote		0.3	TUa	1/quarter	See footnote		X	1, 4
WET - Chronic Invertebrate	See footnote		1.0	TUc	1/quarter	See footnote		X	1, 4
WET - Chronic Vertebrate	See footnote		1.0	TUc	1/quarter	See footnote		X	1, 4

**FOOTNOTES:**

- Quarterly samples shall be collected in calendar quarters (Q1 – January 1<sup>st</sup> to March 31<sup>st</sup>; Q2 – April 1<sup>st</sup> to June 30<sup>th</sup>; Q3 – July 1<sup>st</sup> to September 30<sup>th</sup>; Q4 – October 1<sup>st</sup> to December 31<sup>st</sup>).
- This is a final effluent limitation. See Schedule of Compliance for any applicable interim effluent limitations.
- This is a Compliance Level. The calculated WQBEL for total mercury is 0.7 ng/L.

4. **Whole Effluent Toxicity (WET) Testing:**

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

Monitoring Period - WET testing shall be performed quarterly (calendar quarters) during calendar years ending in 1 and 6.

**FOOTNOTES continued on next page**

**FOOTNOTES:**

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows:  $TU_a = (100)/(48\text{-hr LC50})$  [note that Acute data is generated by both Acute and Chronic testing] and  $TU_c = (100)/(7\text{-day NOEC})$  or  $(100)/(7\text{-day IC25})$  when Chronic testing has been performed or  $TU_c = (TU_a) \times (10)$  when only Acute testing has been performed and is used to predict Chronic test results, where the 48-hr LC50, 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  $TU_a$  of 0.3 if there is no statistically significant mortality in 100% effluent as compared to the control. Report a  $TU_a$  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  $TU_a$  for the Chronic prediction from the Acute data, and report a  $TU_c$  of 10.0.

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

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

## PERMIT LIMITS, LEVELS AND MONITORING – 001

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
001	Stormwater Overflow from Swan Pond	Hudson River	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type <sup>3</sup>	Location		
								Inf.	Eff.	
Flow	Monthly Average	Monitor	MGD			Continuous	Recorder		X	
Flow	Daily Maximum	Monitor	MGD			Continuous	Recorder		X	
pH	Daily Average	6.0 - 9.0	SU			1/quarter	Grab		X	1
Total Suspended Solids (TSS)	Daily Maximum	20	mg/L			1/quarter	Grab		X	1
Settleable Solids	Daily Maximum	Monitor	mL/L			1/quarter	Grab		X	1
Oil and Grease	Daily Maximum	15	mg/L			1/quarter	Grab		X	1
Total Mercury	Daily Maximum	50	ng/L			1/quarter	Grab		X	1, 2

### FOOTNOTES:

- 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).
- This is a Compliance Level. The calculated WQBEL for total mercury is 0.7 ng/L.
- Stormwater Sampling  
All stormwater sampling shall be in accordance with the New York State Department of Environmental Conservation SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity Permit Number GP-0-23-001, which states:

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

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

## PERMIT LIMITS, LEVELS AND MONITORING – 006

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
006	Stormwater Overflow from Pond 006	Internal to Outfall 008 or Drainage Swale Tributary to Hudson River	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency <sup>1</sup>	Sample Type <sup>4</sup>	Location		
								Inf.	Eff.	
Flow	Daily Maximum	Monitor	GPD			Continuous	Estimate		X	2
Flow	Monthly Total	Monitor	Gallons			Continuous	Estimate		X	2
pH	Daily Average	6.5 - 8.5	SU			1/event	Grab		X	
Total Suspended Solids (TSS)	Daily Maximum	20	mg/L			1/event	Grab		X	
Settleable Solids	Daily Maximum	Monitor	mL/L			1/event	Grab		X	
Oil and Grease	Daily Maximum	Monitor	mg/L			1/event	Grab		X	
Total Mercury	Daily Maximum	50	ng/L			1/event	Grab		X	3

### FOOTNOTES:

1. Sampling and reporting at Outfall 006 is only required in the event that discharge does not go to Outfall 008 and is sent directly to the Tributary of the Hudson River.
2. For each month, the daily maximum flow shall represent the highest single day flow for any event that discharges directly to the Tributary, in that month. The month total flow should be a sum of the gallons discharged through Outfall 006 for all events in that month.
3. This is a Compliance Level. The calculated WQBEL for total mercury is 0.7 ng/L.

#### 4. Stormwater Sampling

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

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

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



## 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 in April 2000. 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](https://www.dec.ny.gov/docs/permits_ej_operations_pdf/form2c.pdf)) or that are required to be monitored for by the SPDES permit.
4. **13 Minimum BMPs:** Whenever the potential for a release of pollutants to State waters is determined to be present, the permittee shall identify BMPs that have been established to prevent or minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider good industry practices and, where appropriate, structural measures such as secondary containment and erosion/sediment control devices and practices. USEPA guidance for development of stormwater elements of the BMP is available in *Developing Your Stormwater Pollution Prevention Plan A Guide for Industrial Operators*, February 2009, EPA 833-B-09-002. As a minimum, the plan shall include the following BMPs:

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

## BMPs FOR INDUSTRIAL FACILITIES (continued)

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

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

## MERCURY MINIMIZATION PROGRAM (MMP) - Type III

1. **General** - The permittee must develop, implement, and maintain a mercury minimization program (MMP), containing the elements set forth below, to reduce mercury effluent levels with the goal of achieving the WQBEL of 0.7 ng/L.
2. **MMP Elements** - The MMP must be a written document and must include any necessary drawings or maps of the facility and the leachate 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 008 and other locations tributary to compliance points (if applicable) shall be performed using either USEPA Method 1631 or another sufficiently sensitive method, as approved under 40 CFR Part 136<sup>2</sup>. Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate. Monitoring must be coordinated so that the results can be effectively compared between locations.

Minimum required monitoring is as follows:

- i. **Plant 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 identify if potential mercury sources exist other than leachate and summarize in the status report. Any identified potential mercury sources must have quarterly sampling at a minimum.
  - 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.
- b. **Control Strategy** - The control strategy must contain the following minimum elements:
    - i. **Monitoring for Outfall 008** -
      - 1) Monitoring shall be performed as described in 2.a above. If mercury sources are found other than leachate, the permittee must track down and minimize these sources.
    - ii. **Engineering Report/Study** – An Engineering Study including an alternatives analysis for mercury treatment and reduction must be developed in accordance with the Schedule of Compliance.
    - 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.

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<sup>2</sup> Outfall monitoring must be conducted using the methods specified in Table 8 of *DOW 1.3.10*.

## MERCURY MINIMIZATION PROGRAM (MMP) - Type III

- c. **Status Report - A semiannual** status report must be developed and submitted, in accordance with the [Schedule of Additional Submittals](#), summarizing:
- i. All MMP monitoring results for Outfall 008 for the previous reporting period;
  - ii. A list of known and *potential mercury sources* for Outfall 008
  - 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.

### DEFINITIONS:

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

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

## DISCHARGE NOTIFICATION REQUIREMENTS

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

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

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

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

## SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Compliance Date <sup>3</sup>
008	INTERIM PROGRESS REPORT <sup>4</sup> The permittee shall provide a status update on the Engineering Report/Study detailed below.	EDP + 9 Months
008	INTERIM PROGRESS REPORT The permittee shall provide a status update on the Engineering Report/Study detailed below.	EDP + 18 Months
008	MERCURY AND SELENIUM ENGINEERING REPORT/STUDY The permittee shall submit an approvable <sup>5</sup> Engineering Report. The report shall include the following at a minimum: <ul style="list-style-type: none"> <li>A detailed description of the leachate collection system and current treatment;</li> <li>A tabulation of all available mercury and selenium data for the facility;</li> <li>A summary of the identified potential sources and options available to reduce those sources;</li> <li>A study and evaluation of treatment alternatives that may be used to meet the final effluent limitations for mercury and selenium;</li> <li>The selected alternative to achieve compliance and proposed timeline, including any major milestones such as submittal of any needed design documents, construction start and end, and commence operation.</li> </ul>	EDP + 24 Months
008	INTERIM PROGRESS REPORT The permittee shall provide a status update for meeting the final mercury and selenium effluent limits.	EDP + 33 Months EDP + 42 Months EDP + 51 Months
008	COMPLIANCE WITH FINAL MERCURY AND SELENIUM EFFLUENT LIMITS The permittee shall comply with the final effluent limitation(s) described in this permit for mercury and selenium.	EDP + 60 months

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

OUTFALL	PARAMETER	INTERIM EFFLUENT LIMIT					MONITORING REQUIREMENTS				Notes
		Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.		
008	Total Mercury	Daily Maximum	200	ng/L			1/week	Grab		X	1
008	Total Selenium	Daily Maximum	Monitor	µg/L			1/month	Grab		X	1

Notes: 1. Interim limits expire EDP + 60 months.

b) The permittee shall submit a [Report of Non-compliance Event](#) form with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All notifications shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:

1. A short description of the non-compliance;

<sup>3</sup> 6 NYCRR 750-1.14 (a)

<sup>4</sup> 6 NYCRR 750-1.14 (b)

<sup>5</sup> 6 NYCRR 750 1.2 (a)(8)

2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
  3. Any details which tend to explain or mitigate an instance of non-compliance; and
  4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.
- c) The permittee shall submit copies of any document required by the above schedule of compliance to the DEC Regional Water Engineer and to the Bureau of Water Permits.

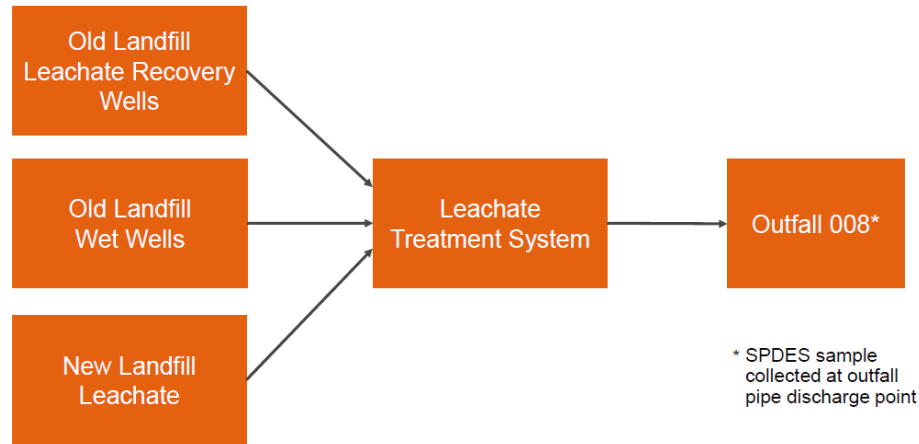
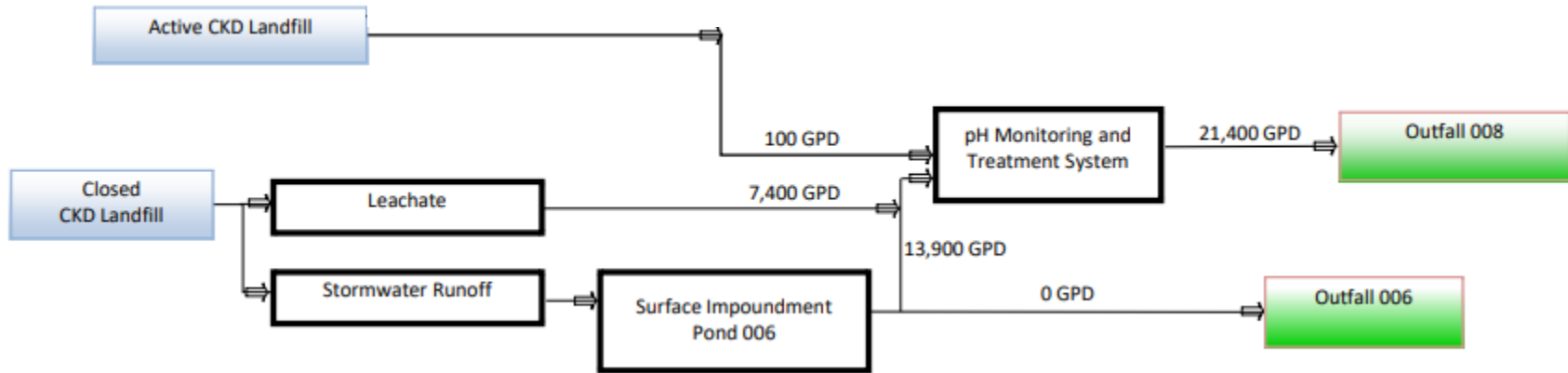
DRAFT

# MONITORING LOCATIONS – Outfalls 008 and 006

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

Influent: No influent samples are required

Effluent: Outfall 008 – at the pipe discharge point; Outfall 006 –at the pipe discharging to the wet well



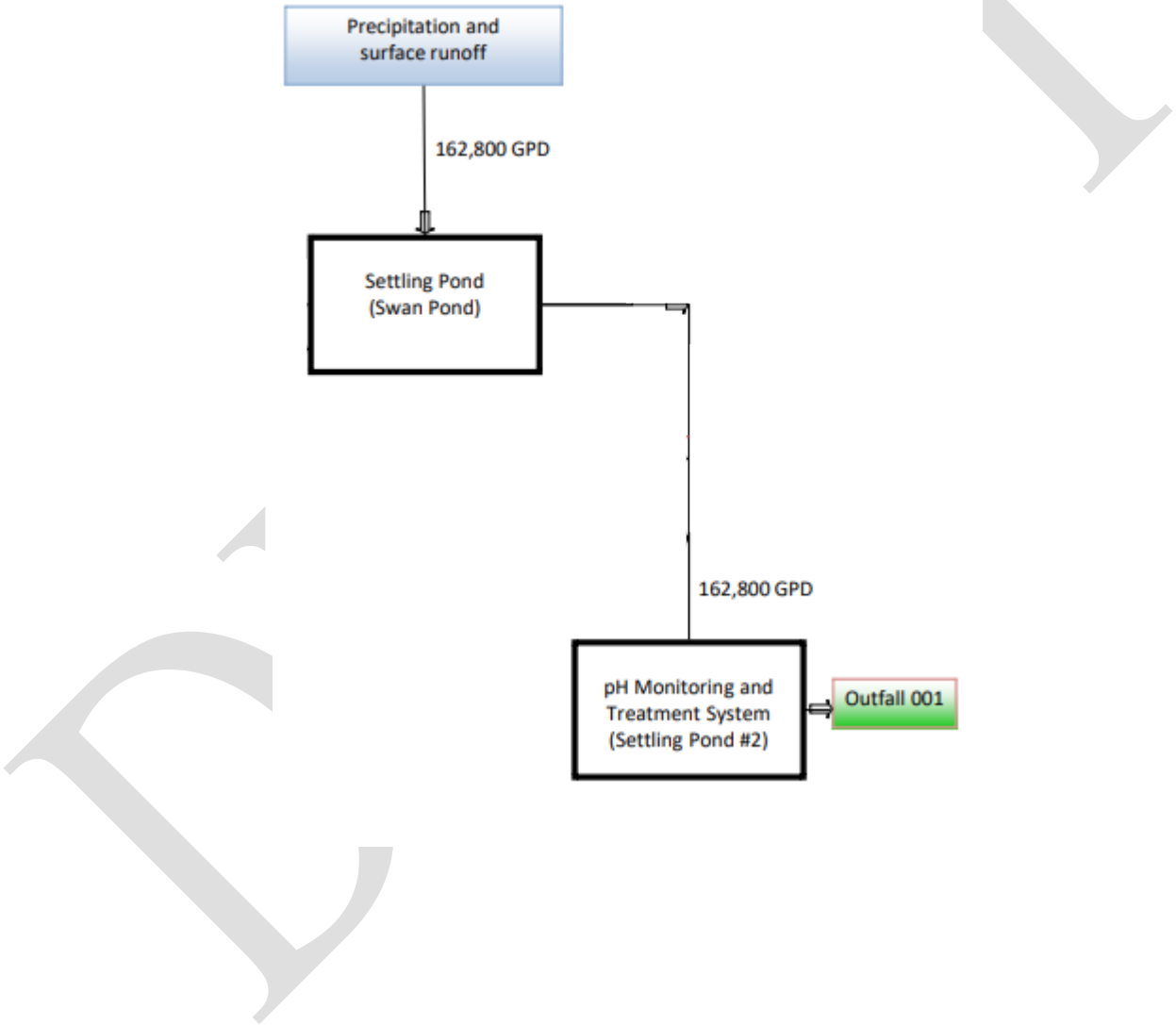


# MONITORING LOCATIONS – Outfall 001

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

Influent: No influent samples are required

Effluent: At the outfall weir prior to discharge to the Hudson River



# 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 <i>WTC Notification Form</i> and <i>WTC Annual Report Form</i> are available from the DEC's website at: <a href="http://www.dec.ny.gov/permits/93245.html">http://www.dec.ny.gov/permits/93245.html</a> |

## RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent.
- B. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each one month reporting period in accordance with the DMR Manual available on 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: [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 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 4  
1130 North Westcott Road, Schenectady, New York, 12306-2014 Phone: (518) 357-2045

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

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
008	<u>BMP PLAN</u> The permittee shall submit and review the completed BMP plan 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.	EDP + 6 Months, Annually thereafter on January 28 <sup>th</sup>
008	<u>WHOLE EFFLUENT TOXICITY (WET) TESTING</u> WET testing shall be performed as required in the footnote of the permit limits table. The toxicity test report including all information requested of this permit shall be attached to your WET DMRs and sent to the <a href="mailto:WET@dec.ny.gov">WET@dec.ny.gov</a> email address.	Within 60 days following the end of each monitoring period
008	<u>WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM</u> The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.	December DMR, January 28 <sup>th</sup>
008	<u>MERCURY MINIMIZATION PLAN</u> The permittee must complete and maintain onsite a semi-annual mercury minimization status report in accordance with the requirements of this permit.	EDP + 6 months, semi-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.

Permittee: Holcim (US) Inc.  
Facility: Holcim (US) Inc. – Catskill Plant  
SPDES Number: NY0006874  
USEPA Non-Major/Class 01 Industrial

Date: February 19, 2025 v.1.25  
Permit Writer: Taylor Shanley  
Water Quality Reviewer: Taylor Shanley  
Full Technical Review

# **SPDES Permit Fact Sheet**

## **Holcim (US) Inc.**

### **Catskill Plant**

#### **NY0006874**



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## Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) EBPS permit renewal and full technical review has been drafted for the Holcim (US) Inc. – Catskill Plant. The changes to the permit are summarized below:

### General Updates

- Updated permittee name from St. Lawrence Cement Co. to Holcim (US) Inc. and facility name to Holcim (US) Inc. – Catskill Plant
- Updated permit format, definitions, and general conditions
- Updated Outfall 001 latitude and longitude
- Added Outfall 006 and 008 latitude and longitude
- Removed Outfalls 002, 003, 03A, 005, and 007
- Removed zebra mussel control program

### Changes at Outfall 008

- Updated receiving water from unnamed tributary of the Hudson River (Class A) to tributary of Post Creek (Class C)
- Added monthly average flow monitoring
- Updated pH effluent limit range from 6.0 - 9.0 to 6.5 - 8.5 SU
- Added 20 mg/L daily max effluent limit for total suspended solids (TSS)
- Added monitoring for settleable solids and oil & grease
- Added 50 ng/L daily max effluent limit for total mercury and associated schedule of compliance item
- Added 4.6 µg/L daily max effluent limit for total selenium and associated schedule of compliance item
- Added quarterly chronic Whole Effluent Toxicity (WET) testing requirements with action levels of 0.3 TUa and 1.0 TUc

### Changes at Outfall 001

- Updated receiving water from unnamed tributary of the Hudson River (Class C) to Hudson River (Class A)
- Added monthly average flow monitoring
- Removed daily average oil & grease monitoring (daily max limit remains)
- Removed TSS intake monitoring and net zero limit (daily max limit remains)
- Removed temperature monitoring and differential limit
- Added monitoring for settleable solids
- Added 50 ng/L daily max effluent limit for total mercury

### Changes at Outfall 006

- Updated receiving water from unnamed tributary of the Hudson River (Class A) to internal to Outfall 008 under normal conditions and drainage swale tributary to Hudson River (Class A) during wet weather
- Added monthly total flow monitoring
- Updated pH effluent limit range from 6.0 - 9.0 to 6.5 - 8.5 SU
- Reduced daily max TSS effluent limit from 50 mg/L to 20 mg/L
- Added monitoring for settleable solids and oil & grease
- Added 50 ng/L daily max effluent limit for total mercury

The following have been added to the Schedule of Additional Submittals:

- Emerging Contaminant Short-Term Monitoring
- Updated Best Management Practices (BMP) Plan
- WET Testing
- Water Treatment Chemical (WTC) Annual Report form
- Mercury Minimization Program (MMP) Semi-annual Status Report

The following has been added to the [Schedule of Compliance](#) for Outfall 008:

- Requirement for submittal of an Engineering Report/Study to achieve the final total mercury and total selenium effluent limits of 50 ng/L and 4.6 µg/L, respectively
- Interim total mercury effluent limit of 200 ng/L
- Interim total selenium monitoring

**This fact sheet summarizes the information used to determine the effluent limitations (limits) and other conditions contained in the permit. General background information including the regulatory basis for the effluent limitations and other conditions are in the [Appendix](#) linked throughout this fact sheet.**

## Administrative History

10/1/1998	The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 10/1/2003. The 1998 permit, along with all subsequent modifications, has formed the basis of this permit.
2/2/1999	Permit was suspended.
10/1/1999	Permit was re-issued with an expiration date of 10/1/2003.
6/25/2001	Permit was modified to account for the existing source water TSS levels, addition of Outfall 008, and the modification of Outfall 002 to allow temperature monitoring at three specific discharges that combined to form Outfall 002.
7/24/2001	Permit was modified to correct a clerical error.
1/31/2003	Permit was modified to remove Outfalls 02A, 02B, and 02C (temperature monitoring locations) and to add temperature monitoring at Outfall 002.
10/1/2003	Permit was administratively renewed with an expiration date of 10/1/2008.
4/14/2008	DEC issued a Request for Information (RFI) to modify and renew the SPDES permit due to the facility's EBPS score <sup>1</sup> . At the time of the RFI, the facility had an EBPS score of 457 and ranking of 1.
10/1/2008	The current permit was allowed to stay in effect pursuant to SAPA <sup>2</sup> .
7/12/2008	DEC extended the RFI submittal deadline to 9/5/2008 following a request by the permittee.
10/6/2008	DEC received a NY-2C application.

<sup>1</sup> Pursuant to 6 NYCRR 750-1.18 and NYS Environmental Benefit Permit Strategy (EBPS)

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



- 2010 The facility's kilns and cooling water intake were shut down. The month and day are unknown.
- 3/18/2011 Holcim (US) Inc. notified DEC of the company's decision to cease manufacturing operations.
- 8/31/2011 DEC received an updated NY-2C application with additional information.
- 1/17/2012 Holcim (US) Inc. announced permanent closure of the facility, with the exception of the leachate collection and treatment system.
- 4/28/2023 DEC issued a RFI to modify and renew the SPDES permit due to the facility's EBPS score<sup>3</sup>. At the time of the RFI, the facility had an EBPS score of 290 and ranking of 46.
- 6/26/2023 DEC extended the RFI submittal deadline to 12/1/2023 following a request by the permittee.
- 11/28/2023 The permittee submitted a timely and sufficient NY-2C application.

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

## Facility Information

This is an industrial facility (SIC code 3241 – hydraulic cement), not currently operational, that previously manufactured cement. The SIC code 3241 has applicable Effluent Limitation Guidelines (ELGs) (40 CFR 411 Cement Manufacturing, Subpart B) that are no longer applicable due to the facility's closed status. Leachate from an unlined, closed landfill ("old landfill") containing cement kiln dust (CKD) from previous facility operations is collected via a leachate collection system. Leachate from a lined, closed CKD landfill ("new landfill"), located approximately 1.0-mile north on the facility's property, is also piped to the facility's treatment system. Leachate from both landfills is treated via pH adjustment with sulfuric acid and discharged via the primary outfall, Outfall 008. Outfall 008 consists of a pipe that discharges to a typically dry ditch that eventually flows briefly into Post Creek and then joins the Hudson River.

Outfall 001 previously included "Plant Cooling Water and Truck Wash Water" and has been updated to reflect the current function, as it only conveys stormwater overflow from Swan Pond, a stormwater surface impoundment located west of the old landfill. Outfall 001 consists of an underground pipe that runs from Swan Pond to the Hudson River.

Outfall 006 conveys stormwater overflow from Pond 006, a stormwater surface impoundment located east of the old landfill. During normal conditions, a pipe on the pond's surface conveys stormwater to the leachate treatment system for discharge via Outfall 008. During wet weather, the pond has the potential to overflow via an emergency spillway to a drainage swale that eventually flows directly into the Hudson River. The pond collects stormwater runoff from the old landfill. In 2017, Pond 006 was dredged to remove CKD-impacted sediment.

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<sup>3</sup> Pursuant to 6 NYCRR 750-1.18 and NYS Environmental Benefit Permit Strategy (EBPS)

Outfalls 002, 03A, 003, 005, and 007 have been removed from the permit. Outfalls 002 and 005 are no longer on Holcim property; outfalls 03A and 003 have been decommissioned; and stormwater no longer discharges via Outfall 007 and is instead piped to the leachate treatment system for discharge via Outfall 008.

### Site Overview



Figure 1. Site overview.

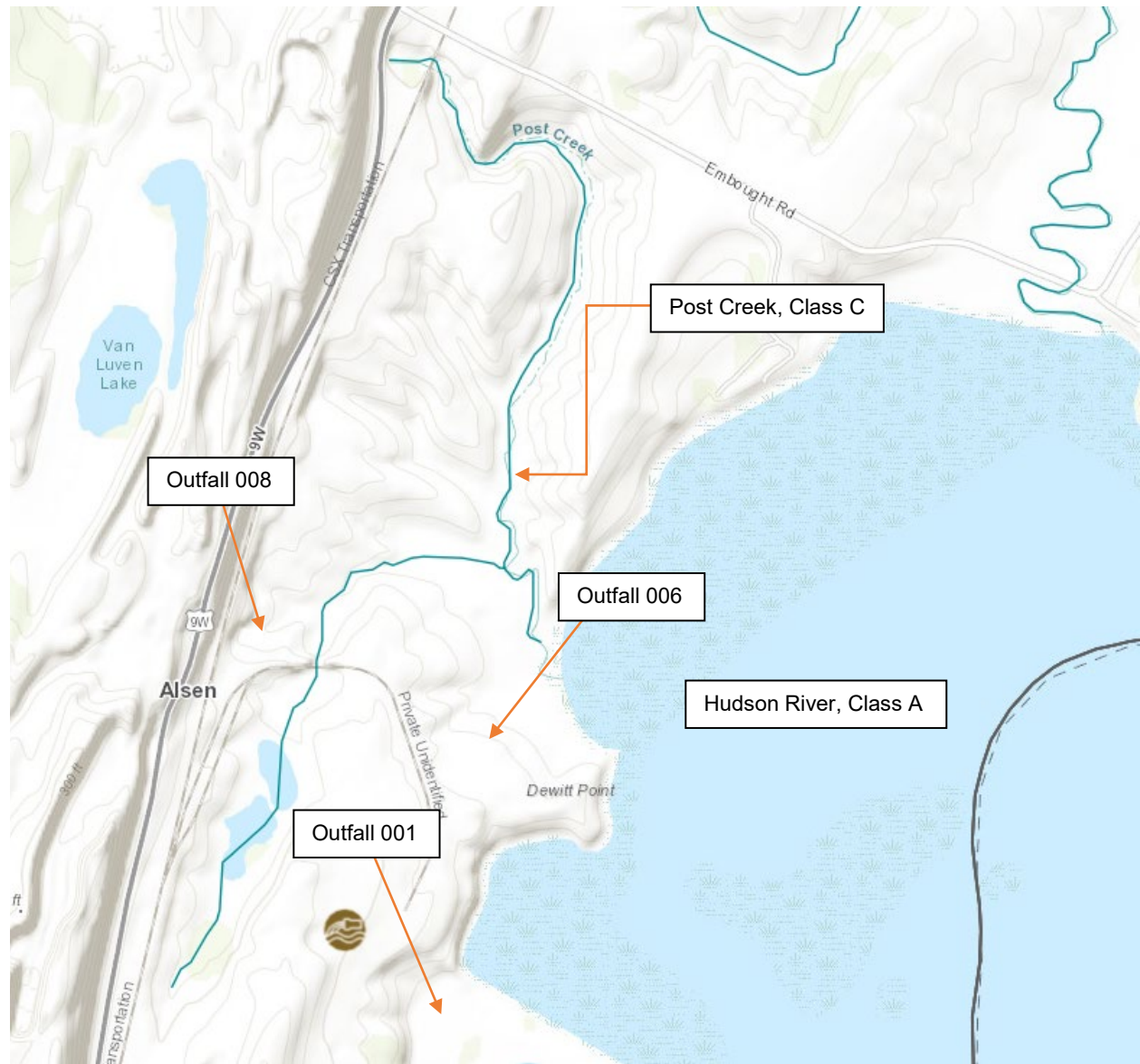


Figure 2. Receiving waterbody and Outfall 001, 006, and 008 locations.

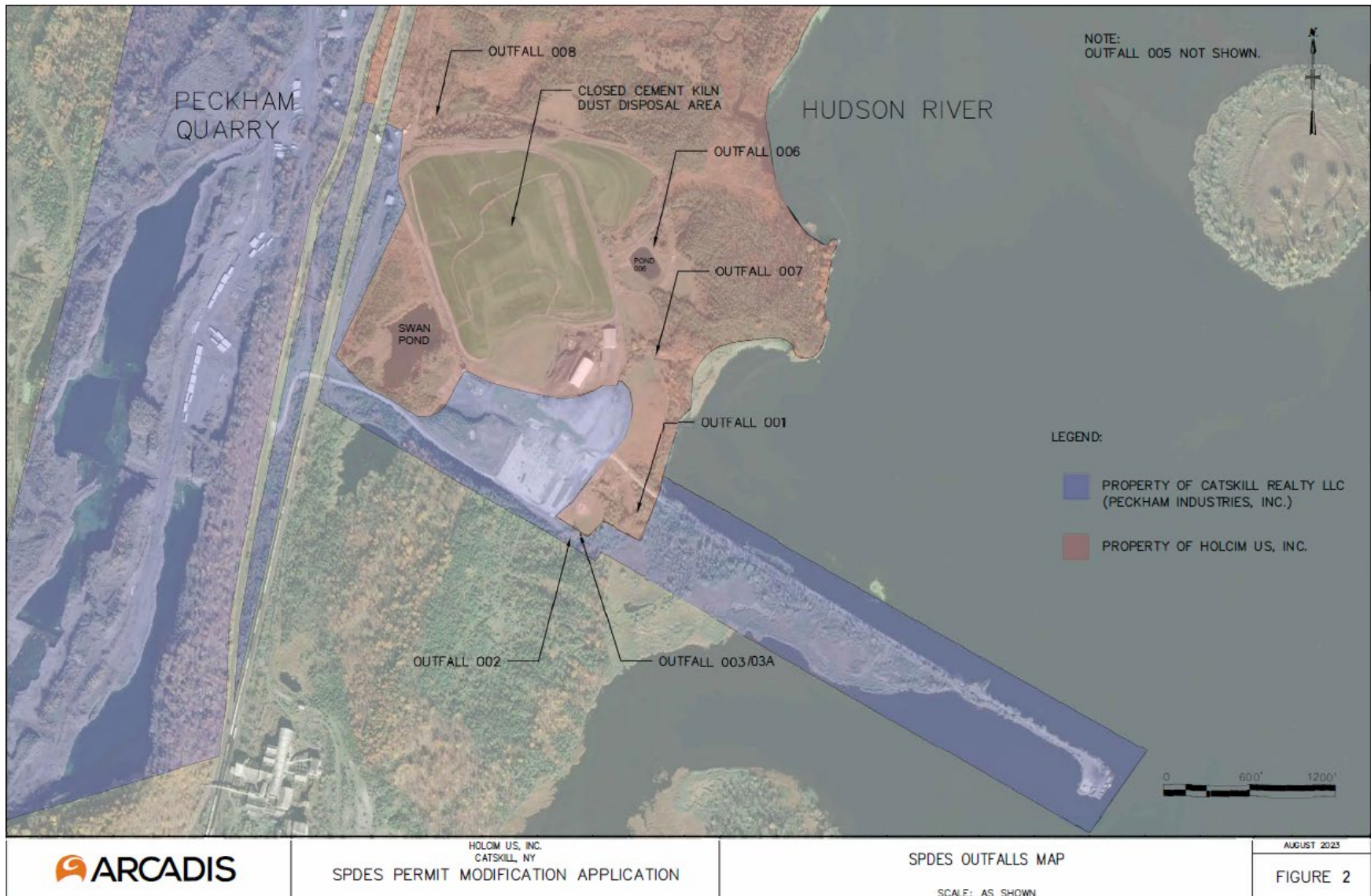


Figure 3. Site overview with outfall locations and property boundaries.

### Enforcement History

A review of the facility’s enforcement history from 6/30/2019 to 5/31/2024 indicates that no enforcement action was taken.

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 the application and Discharge Monitoring Reports submitted by the permittee for the period 6/30/2019 to 5/31/2024. [Appendix Link](#)

### Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	3241	Stormwater Overflow from Swan Pond	Hudson River, Class A
006	3241	Stormwater Overflow from Pond 006	Normal Conditions: Internal to Outfall 008 Wet Weather Conditions: Drainage Swale Tributary to Hudson River, Class A
008	3241	Treated Landfill Leachate and Stormwater	Tributary of Post Creek, Class C
002	Former plant cooling water outfall – Removed from permit		
03A	Former treated sanitary overflow – Removed from permit		
003	Former treated sanitary outfall – Removed from permit		
005	Former quarry dewatering outfall – Removed from permit		
007	Former stormwater outfall – Removed from permit		

Note: Outfalls 002, and 005 are no longer on Holcim property; Outfalls 03A and 003 have been decommissioned; and stormwater no longer discharges via Outfall 007 and is instead discharged via Outfall 008.

**Reach Description:** Post Creek (H-184-1) is a tributary of the Hudson River. The segment of Post Creek at the point of discharge is classified as C (6 NYCRR 863.6 – Table I - Item 1). The classification changes to A when the tributary reaches the Hudson River, approximately 2 miles downstream of Outfall 008 (6 NYCRR 858.4 – Table I – Item 3).

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

### Impaired Waterbody Information

The Post Creek segment (PWL No. 1301-0221) is not listed on the 2020/2022 [New York State Section 303\(d\) List](#) of Impaired/TMDL Waters, and therefore, there are no applicable wasteload allocations (WLAs) for this discharge.

### Critical Receiving Water Data

Intermittent stream effluent limits (ISEL) have been applied for the discharge to Post Creek based on information provided by the permittee. Consistent with TOGS 1.3.1, the water quality standards have been applied as end-of-pipe limitations with no mixing or dilution.

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](#).

### Whole Effluent Toxicity (WET) Testing

An evaluation of the discharge at Outfall 008 indicates the potential for toxicity based on 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. [Appendix Link](#)

The requirement for WET testing is new. No previous WET data for Outfall 008 was available to perform a reasonable potential analysis. Consistent with TOGS 1.3.2, given the dilution available and location outside of the Great Lakes basin, the permit requires chronic WET testing at Outfall 008. WET testing action levels of 0.3 TUa and 1.0 TUC have been included in the permit for each species. Samples will be collected quarterly during years ending in 1 and 6.

### 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 other than described below.

The facility uses Outfall 001 to discharge stormwater from Swan Pond, a stormwater surface impoundment. Previously, plant cooling water and truck wash water were discharged via Outfall 001. The net TSS and temperature differential effluent limits have been discontinued as the facility is no longer operating and does not intake cooling water or conduct truck washing. Backsliding is allowed for TSS and temperature under 6 NYCRR Part 750-1.10(C)(1), "material and substantial alterations or additions to the permitted facility occurred after permit issuance, which justify the application of a less stringent effluent limitation."

### Antidegradation

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

### Discharge Notification Act Requirements

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

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

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<sup>4</sup> As prescribed by 6 NYCRR Part 617

## 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 develop and implement a BMP plan that prevents, or minimizes the potential for, the release of toxic or hazardous pollutants to state waters. This is a new requirement and the BMP plan requires annual review by the permittee.

## Stormwater Pollution Prevention Requirements

On 11/27/2023, the permittee submitted a Conditional Exclusion for No Exposure Form, certifying that all industrial activities and materials are completely sheltered from exposure. However, due to the facility history, both stormwater outfalls (001 and 006) will continue to be given individual permit requirements (see [Pollutant Summary Table](#) below for more information).

## Mercury<sup>5</sup>

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

The facility is an EPA non-major, Class 01 industrial facility located outside the Great Lakes watershed. Consistent with DOW 1.3.10, and given the presence of mercury in their effluent, the permit includes requirements for the implementation of MMP Type III.

Based on the four data points collected at Outfall 008 (minimum = 37.9 ng/L, maximum = 162 ng/L, and average = 82.3 ng/L) as part of the NY-2C application, the facility is not expected to meet the general level currently achievable (GLCA) of 50 ng/L. Therefore, the permit includes an interim effluent limitation equal to the individual level currently achievable (ILCA) without treatment. The ILCA has been set at 200 ng/L as the daily maximum total mercury effluent limitation with weekly monitoring. A five (5)-year compliance schedule to achieve the 50 ng/L as a final effluent limitation, including an engineering study, is included in the [Schedule of Compliance](#). A mercury minimization program and semi-annual status report is required to assess the facility's progress towards the GLCA. [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
- Semi-annual status report (maintained onsite)

Based on the one data point collected at Outfall 006 (0.8 ng/L), the facility is expected to meet the GLCA of 50 ng/L. Outfall 001 mercury data was not submitted as part of the application; however, based on the nature of the discharge (stormwater only), the facility is expected to meet the GLCA of 50 ng/L.

## Schedule of Compliance

A Schedule of Compliance is being included<sup>6</sup> for attainment of the final effluent limits at Outfall 008 for total mercury and total selenium. This also includes a submittal requirement for an engineering study to evaluate options to achieve compliance. These limits are new and a major modification to the treatment facility or operations may be needed and will take a significant amount of time to properly plan, design, and build.

[Appendix Link](#)

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<sup>5</sup> In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

<sup>6</sup> Pursuant to 6 NYCRR 750-1.14

### Emerging Contaminant Monitoring

Emerging Contaminants, such as Perfluorooctanoic acid (PFOA), Perfluorooctanesulfonic acid (PFOS), and 1,4-Dioxane (1,4-D), have been used in a wide variety of consumer and industrial product as well as in manufacturing processes for decades. These contaminants do not break down easily, therefore their presence in wastewater can remain a concern for years following their discontinued use. As the science surrounding these contaminants is still evolving, additional monitoring is needed to better understand potential sources and background levels. For more information on emerging contaminants, please see the DEC Division of Water web page: <https://www.dec.ny.gov/chemical/127939.html>.

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

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

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

### Schedule of Additional Submittals

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

- Emerging Contaminant Short-Term Monitoring
- Updated BMP Plan
- WET Testing
- WTC Annual Report form
- MMP Semi-annual Status Report



## 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
008	42° 10' 11" N	73° 54' 50" W	Tributary of Post Creek	C	H-178 thru 192, west of Hudson PWL: 1301-0221	13/01	90 <sup>7</sup>	-	-	-	-	-	-	-
001	42° 9' 45" N	73° 54' 30" W	Hudson River	A	H (portion 4b) PWL: 1301-0276	13/01	-	-	-	-	-	-	-	-
006	42° 10' 2.6" N	73° 54' 31" W	Internal to Outfall 008 or Drainage Swale Tributary to Hudson River	A	H (portion 4b) PWL: 1301-0276	13/01	-	-	-	-	-	-	-	-

Note: Intermittent stream effluent limitations have been applied for the discharges from Outfall 006 and 008 and water quality standards were applied as end-of-pipe limitations with no mixing or dilution. See [Receiving Water Information](#) section for more information.

## POLLUTANT SUMMARY TABLE

### Outfall 008

Outfall #	008	Description of Wastewater: Treated Landfill Leachate and Stormwater													
		Type of Treatment: pH Adjustment													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>8</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
<b>General Notes:</b> Existing discharge data was obtained from the NY-2C application and Discharge Monitoring Reports from 6/30/2019 to 5/31/2024 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. The water quality review was completed for discharge to a Class C waterbody with no dilution. Given the dilution available within the downstream Class A portion of the Hudson River, limits are also expected to be protective of the Class A waterbody.															

<sup>7</sup> Ambient hardness is based on one sample collected in 2022 from RIBS station 13-MNSP-0.2, located ~1.2 miles upstream along Mineral Spring Brook, a tributary to the Hudson River.

<sup>8</sup> 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).

Outfall #	Description of Wastewater: Treated Landfill Leachate and Stormwater														
	Type of Treatment: pH Adjustment														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>8</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Flow Rate	GPD	Monthly Avg	-	-	-	-	-	No alterations that will impair the waters for their best usages.						-	<b>Monitor</b> 750-1.13
		Daily Max	Monitor	23,000 Actual Average	20/0	-	-							-	-
Flow will continue to be monitored for informational purposes and to calculate pollutant loadings. Monthly average monitoring has been added.															
pH	SU	Minimum	6.0	6.1 Actual Min	60/0	6.0	TOGS 1.2.1	-	-	6.5 – 8.5	Range	-	703.3	-	ISEL
		Maximum	9.0	8.9 Actual Max	60/0	9.0		-	-			-			
Consistent with TOGS 1.3.1, intermittent stream effluent limits (ISEL) are applied to effluent discharges to streams where little or no streamflow is available for dilution. As such, the water quality standards (WQS) have been applied as an end-of-pipe limitation with no mixing or dilution.															
Total Suspended Solids (TSS)	mg/L	Daily Max	Monitor	50 99% lognormal	20/0	20	TOGS 1.2.1	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.			703.2	-	TBEL	
				10 Actual Avg											34 Actual Max
The limit has been set at the best professional judgment (BPJ) limit consistent with TOGS 1.2.1 Attachment C. Based on the EEQ, the facility is expected to meet the limit of 20 mg/L without a schedule of compliance.															
Additional Pollutants															
Settleable Solids	mL/L	Daily Max	-	-	-	-	-	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.			703.2	-	<b>Monitor</b> 750-1.13	
															Daily max monitoring has been added for future permit development.
Oil and Grease	mg/L	Daily Max	-	-	-	-	-	-	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.			703.2	-	<b>Monitor</b> 750-1.13	
															Daily max monitoring has been added for future permit development.
Total Organic Carbon (TOC)	mg/L	Daily Max	-	4.4 Actual Avg	4/0	-	-	-	-	-	-	-	-	-	No Limitation
				There are no applicable TBELs or WQS for TOC; therefore, no limitation is required. Due to the low TOC, no impact on oxygen in the receiving water is expected.											

Outfall #	Description of Wastewater: Treated Landfill Leachate and Stormwater														
	Type of Treatment: pH Adjustment														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>8</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Total Antimony	µg/L	Daily Max	-	1.1 Actual Avg	3/1	-	-	-	-	-	-	-	-	-	No Limitation
	There are no applicable TBELs or WQS for Class C waterbodies; therefore, no limitation is required. Three of the four samples were reported by the laboratory with J qualifiers indicating estimated values and given the dilution, the effluent is not expected to cause or contribute to a WQS violation in the downstream Class A portion of the Hudson River.														
Total Arsenic	µg/L	Daily Max	-	5.0 Actual Avg	4/0	-	-	-	32	150	A(C)	No Reasonable Potential	-	-	No Limitation
	The projected instream concentration was calculated using the maximum measured effluent concentration of 12 µg/L, a multiplier of 2.6, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.0 was also applied to convert between the total and dissolved form. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no WQBEL is specified.														
Total Chromium	µg/L	Daily Max	-	4.7 Actual Avg	4/0	-	-	-	12	68	A(C)	No Reasonable Potential	-	-	No Limitation
	One of four samples was reported by the laboratory with a J qualifier (estimated value) and was removed from the existing effluent quality calculation. The projected instream concentration was calculated using the maximum measured effluent concentration of 5.5 µg/L, a multiplier of 2.6, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.163 was also applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no WQBEL is specified.														
Total Copper	µg/L	Daily Max	-	3.4 Total Actual Max	8/0	-	-	-	6.2 Dissolved	8.2 Dissolved	A(C)	No Reasonable Potential	<a href="#">703.5</a>	-	No Limitation
	The projected instream concentration was calculated using the maximum measured effluent concentration of 3.4 µg/L, a multiplier of 1.9, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.042 was also applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no WQBEL is specified.														
Total Mercury	ng/L	Daily Max	-	82 Actual Avg 38 Actual Min 162 Actual Max	4/0	200	ILCA	-	-	0.7	H(FC)	50	GLCA	-	DOW 1.3.10
	See <a href="#">Mercury section of this fact sheet</a> . A schedule of compliance item has been included to achieve 50 ng/L with an interim limit of 200 ng/L.														

Outfall #	Description of Wastewater: Treated Landfill Leachate and Stormwater														
	Type of Treatment: pH Adjustment														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>8</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Total Nickel	µg/L	Daily Max	-	10 Actual Avg	4/0	-	-	-	31	48	A(C)	No Reasonable Potential	-	-	No Limitation
	One of four samples was reported by the laboratory with a J qualifier (estimated value) and was removed from the existing effluent quality calculation. The projected instream concentration was calculated using the maximum measured effluent concentration of 12 µg/L, a multiplier of 2.6, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.003 was also applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no WQBEL is specified.														
Total Selenium	µg/L	Daily Max	-	16 Actual Avg 12 Actual Min 22 Actual Max	4/0	-	-	-	57	4.6	A(C)	4.6	703.5	-	WQBEL
	The projected instream concentration was calculated using the maximum measured effluent concentration of 22 µg/L, a multiplier of 2.6, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.0 was also applied to convert between the total and dissolved form. A comparison of the projected instream concentration to the WQS indicates reasonable potential to cause or contribute to a WQS violation and therefore a WQBEL is specified. A schedule of compliance item has been included to achieve 4.6 µg/L with interim monitoring.														
Total Thallium	µg/L	Daily Max	-	0.18 Actual Avg	3/1	-	-	-	2.1	8	A(C)	No Reasonable Potential	-	-	No Limitation
	Three of the four samples were reported by the laboratory with J qualifiers (estimated value) and one value was reported as non-detect. The projected instream concentration was calculated using the maximum estimated effluent concentration of 0.19 µg/L, a multiplier of 2.6, and an assumed negligible upstream ambient concentration. The multiplier was selected from EPA's Technical Support Document Chapter 3.3 to account for the number of samples. A metals translator of 1.014 was also applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Due to the estimated value and demonstration of no reasonable potential, no WQBEL is specified.														

Outfall 001

Outfall #	001	Description of Wastewater: Stormwater Overflow from Swan Pond													
		Type of Treatment: No Treatment													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>9</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
<b>General Notes:</b> Existing discharge data from 6/30/2019 to 5/31/2024 was obtained from Discharge Monitoring Reports provided by the permittee.															
Flow Rate	MGD	Monthly Avg	-	-	-	-	-	No alterations that will impair the waters for their best usages.						-	Monitor 750-1.13
		Daily Max	Monitor	0.93 99% Lognormal 0.74 Actual Max	60/0	-	-							-	-
Flow will continue to be monitored for informational purposes and to calculate pollutant loadings. A new requirement for monthly average monitoring has been added.															
pH	SU	Minimum	6.0	6.6 Actual Min	60/0	6.0	TOGS 1.2.1	-	-	6.5 – 8.5	Range	-	703.3	-	TBEL
		Maximum	9.0	9.0 Actual Max	60/0	9.0		-	-	-	-	-	-	-	-
The limit will continue to be set at the BPJ limit consistent with TOGS 1.2.1 Attachment C. Given the available dilution, an effluent limitation equal to the TBEL is protective of the WQS.															
Oil and Grease	mg/L	Daily Avg	Monitor	0	0/60	-	-	-	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.				-	Discontinued	
		Daily Max	15	0	0/60	15	TOGS 1.2.1	-					703.2	-	TBEL
The limit will continue to be set at the BPJ limit consistent with TOGS 1.2.1 Attachment C. Given the available dilution, an effluent limitation equal to the TBEL is protective of the WQS.															
Total Suspended Solids (TSS)	mg/L	Daily Max	20	23 99% Lognormal 9.9 Actual Max	60/0	20	TOGS 1.2.1	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				703.2	-	TBEL
		The limit will continue to be set at the BPJ limit consistent with TOGS 1.2.1 Attachment C. Given the available dilution, an effluent limitation equal to the TBEL is protective of the WQS.													

<sup>9</sup> 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)

Permittee: Holcim (US) Inc.  
 Facility: Holcim (US) Inc. – Catskill Plant  
 SPDES Number: NY0006874  
 USEPA Non-Major/Class 01 Industrial

Date: February 19, 2025 v.1.26  
 Permit Writer: Taylor Shanley  
 Water Quality Reviewer: Taylor Shanley  
 Full Technical Review

Outfall #	001														
	Description of Wastewater: Stormwater Overflow from Swan Pond														
Type of Treatment: No Treatment															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>9</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
TSS, Intake	mg/L	Daily Max	Monitor	6.4 Actual Min 100 Actual Avg 980 Actual Max	60/0	-	-	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				703.2	-	Discontinued
TSS, Net (Discharge – Intake)	mg/L	Daily Max	0	0	60/0	-	-	-	Outfall 001 previously discharged plant cooling intake water and truck wash water. Previous limits were set based on variable TSS levels noted in the intake water. Intake TSS monitoring and net TSS limits are no longer applicable and have been discontinued. The new effluent TSS limit of 20 mg/L is expected to be protective of the receiving waterbody. Removal of monitoring requirements does not constitute backsliding. See <a href="#">anti-backsliding</a> above for justification of limit removal.				-	Discontinued	
Temperature	°F	Daily Max	Monitor	38 Actual Min 56 Actual Avg 78 Actual Max	60/0	-	-	-					The water temperature at the surface of an estuary shall not be raised to more than 90°F at any point.		
Temperature Differential (Discharge – Intake)	°F	Daily Max	5.4	0.04 Actual Min 2.2 Actual Avg 4.2 Actual Max	60/0	-	-	-	Outfall 001 no longer discharges plant cooling intake water. Therefore, temperature monitoring and effluent limits are no longer applicable and have been discontinued. Given the downstream dilution and nature of the discharge (stormwater), the effluent is not expected to have a thermal impact on the Hudson River. Removal of monitoring requirements does not constitute backsliding. See <a href="#">anti-backsliding</a> above for justification of limit removal.						
Additional Pollutants															
Settleable Solids	mL/L	Daily Max	-	-	-	-	-	-	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 monitoring has been added for future permit development.															
Total Mercury	ng/L	Daily Max	-	0.8	1/0	-	-	-	-	0.7	H(FC)	50	GLCA	-	DOW 1.3.10
The facility is expected to achieve the GLCA. See <a href="#">Mercury section of this fact sheet</a> .															

Outfall 006

Outfall #	Description of Wastewater: Stormwater Runoff from Pond 006														
	Type of Treatment: pH adjustment before being discharged through Outfall 008 or no treatment before being discharged to Tributary of Hudson River														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>10</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
<b>General Notes:</b> No data was available via DMRs or the application. This outfall is an overflow of stormwater from Pond 006 that is conveyed to the leachate treatment system during normal conditions. During wet weather, there is a potential for a separate discharge to a drainage swale that leads to the Hudson River. Sampling and reporting at Outfall 006 will be required in the event that discharge does not go to Outfall 008 and is sent directly to the tributary of the Hudson River.															
Flow Rate	GPD	Monthly Total	-	-	-	-	-	No alterations that will impair the waters for their best usages.						-	<b>Monitor</b> 750-1.13
		Daily Max	Monitor	-	-	-	-							-	<b>Monitor</b> 750-1.13
Flow will continue to be monitored for informational purposes and to calculate pollutant loadings. A new requirement for monthly total monitoring has been added.															
pH	SU	Minimum	6.0	-	-	6.0	TOGS 1.2.1	-	-	<b>6.5 – 8.5</b>	Range	-	<a href="#">703.3</a>	-	ISEL
		Maximum	9.0	-	-	9.0		Consistent with TOGS 1.3.1, ISEL are applied to effluent discharges to streams where little or no streamflow is available for dilution. As such, the WQS has been applied as an end-of-pipe limitation at Outfall 006 to better reflect water quality at the point of discharge.							
Total Suspended Solids (TSS)	mg/L	Daily Max	50	-	-	<b>20</b>	TOGS 1.2.1	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				<a href="#">703.2</a>	-	TBEL
		The limit has been set at the BPJ limit consistent with TOGS 1.2.1 Attachment C. An effluent limitation equal to the TBEL is expected to be protective of the WQS.													
<b>Additional Pollutants</b>															
Settleable Solids	mL/L	Daily Max	-	-	-	-	-	-	None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.				<a href="#">703.2</a>	-	<b>Monitor</b> 750-1.13
		Daily max monitoring has been added for future permit development.													
Oil and Grease	mg/L	Daily Max	-	-	-	-	-	-	No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.				<a href="#">703.2</a>	-	<b>Monitor</b> 750-1.13
		Daily max monitoring has been added for future permit development.													

<sup>10</sup> 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)

Permittee: Holcim (US) Inc.  
 Facility: Holcim (US) Inc. – Catskill Plant  
 SPDES Number: NY0006874  
 USEPA Non-Major/Class 01 Industrial

Date: February 19, 2025 v.1.26  
 Permit Writer: Taylor Shanley  
 Water Quality Reviewer: Taylor Shanley  
 Full Technical Review

Outfall #	006	Description of Wastewater: Stormwater Runoff from Pond 006													
		Type of Treatment: pH adjustment before being discharged through Outfall 008 or no treatment before being discharged to Tributary of Hudson River													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality <sup>10</sup>	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis		
Total Mercury	ng/L	Daily Max	-	0.8	1/0	-	-	-	-	0.7	H(FC)	<b>50</b>	GLCA	-	DOW 1.3.10
Mercury at Outfall 006 is controlled through the application of the final effluent limit of 50 ng/L at Outfall 008. In the event of discharge to the tributary of the Hudson River, the facility is expected to achieve the GLCA. See <a href="#">Mercury section of this fact sheet</a> .															



## 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 95<sup>th</sup> (monthly average) and 99<sup>th</sup> (daily maximum) percentiles of the lognormal distribution of existing effluent data. When there are greater than three non-detects, a delta-lognormal distribution is assumed, and delta-lognormal calculations are used to determine the monthly average and daily maximum pollutant concentrations. Statistical calculations are not performed for parameters where there are less than ten data points. If additional data is needed, a monitoring requirement may be specified either through routine monitoring or a short-term high intensity monitoring program. The [Pollutant Summary Table](#) identifies the number of sample data points available.

### Permit Requirements

#### Basis for Effluent Limitations

Sections 101, 301, 304, 308, 401, 402, and 405 of the CWA and Titles 5, 7, and 8 of Article 17 ECL, as well as their implementing federal and state regulations, and related guidance, provide the basis for the effluent limitations and other conditions in the permit.

When conducting a full technical review of an existing permit, the previous effluent limitations form the basis for the next permit. Existing effluent quality is evaluated against the existing effluent limitations to determine if these should be continued, revised, or deleted. Generally, existing limitations are continued unless there are changed conditions at the facility, the facility demonstrates an ability to meet more stringent limitations, or in response to updated regulatory requirements. Pollutant monitoring data is also reviewed to determine the presence of additional contaminants that should be included in the permit based on a reasonable potential analysis to cause or contribute to a water quality standards violation.

#### Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(l) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this fact sheet. Consistent with current case law<sup>11</sup> and USEPA interpretation<sup>12</sup> anti-backsliding requirements do not apply should a revision to the final effluent limitation take effect before the scheduled date of compliance for that final effluent limitation.

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<sup>11</sup> American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

<sup>12</sup> U.S. EPA, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; 65 Fed. Reg. 31682, 31704 (May 18, 2000); Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20802, 20837 & 20981 (April 16, 1993)

## Antidegradation Policy

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

## Effluent Limitations

In developing a permit, 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).

#### *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.

### Mixing Zone Analyses

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

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

### Critical Flows

In accordance with TOGS 1.2.1 and 1.3.1, WQBELs are developed using dilution ratios that relate the critical low flow condition of the receiving waterbody to the critical effluent flow. The critical low flow condition used in the dilution ratio will be different depending on whether the limitations are for aquatic or human health protection. For chronic aquatic protection, the critical low flow condition of the waterbody is typically represented by the 7Q10 flow and is calculated as the lowest average flow over a 7-day consecutive period within 10 years. For acute aquatic protection, the critical low flow condition is typically represented by the 1Q10 and is calculated as the lowest 1-day flow within 10 years. However, NYSDEC considers using 50% of the 7Q10 to be equivalent to the 1Q10 flow. For the protection of human health, the critical low flow condition is typically represented by the 30Q10 flow and is calculated as the lowest average flow over a 30-day consecutive period within 10 years. However, NYSDEC considers using 1.2 x 7Q10 to be equivalent to the 30Q10. The 7Q10 or 30Q10 flow is used with the critical effluent flow to calculate the dilution ratio. The critical effluent flow can be the maximum daily flow reported on the permit application, the maximum of the monthly average flows from discharge monitoring reports for the past three years, or the facility design flow. When more than one applicable standard exists for aquatic or human health protection for a specific pollutant, a reasonable potential analysis is conducted for each applicable standard and corresponding critical flow to ensure effluent limitations are sufficiently stringent to ensure all applicable water quality standards are met as required by 40 CFR 122.44(d)(1)(i). For brevity, the pollutant summary table reports the results of the most conservative scenario.

### Reasonable Potential Analysis (RPA)

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

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

The DEC uses modeling tools to estimate the expected concentrations of the pollutant in the receiving water and develop WQBELs. These tools were developed in part using the methodology

referenced above. If the estimated concentration of the pollutant in the receiving water is expected to exceed the ambient water quality standard or guidance value (i.e. numeric interpretation of a narrative water quality standard), then there is a reasonable potential that the discharge may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. If a TMDL is in place, the facility's WLA for that pollutant is applied as the WQBEL.

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

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

#### *Whole Effluent Toxicity (WET) Testing:*

WET tests use small vertebrate and invertebrate species to measure the aggregate toxicity of an effluent. There are two different durations of toxicity tests: acute and chronic. Acute toxicity tests measure survival over a 96-hour test exposure period. Chronic toxicity tests measure reductions in survival, growth, and reproduction over a 7-day exposure. TOGS 1.3.1 includes guidance for determining when aquatic toxicity testing should be included in SPDES permits. The authority to require toxicity testing is in 6NYCRR 702.9. TOGS 1.3.2 describes the procedures which should be followed when determining whether to include toxicity testing in a SPDES permit and how to implement a toxicity testing program. Per TOGS 1.3.2, WET testing may be required when any one of the following seven criteria are applicable:

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

#### *Minimum Level of Detection*

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

In these instances, the calculated limitation is included in the permit with a compliance level set equal to the ML of the most sensitive method.

### Monitoring Requirements

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

### Other Conditions

#### Mercury

The multiple discharge variance (MDV) for mercury was developed in accordance with 6 NYCRR 702.17(h) "to address widespread standard or guidance value attainment issues including the presence of a ubiquitous pollutant or naturally high levels of a pollutant in a watershed." The first MDV was issued in October 2010, and subsequently revised and reissued in 2015; each subsequent iteration of the MDV is designed to build off the previous version, to make reasonable progress towards the water quality standard (WQS) of 0.7 ng/L dissolved mercury. The MDV is necessary because human-caused conditions or sources of mercury prevent attainment of the WQS and cannot be remedied (i.e., mercury is ubiquitous in New York waters at levels above the WQS and compliance with a water quality-based effluent limitation (WQBEL) for mercury cannot be achieved with demonstrated effluent treatment technologies). The DEC has determined that the MDV is consistent with the protection of public health, safety, and welfare. During the effective period of this MDV, any increased risks to human health are mitigated by fish consumption advisories issued periodically by the NYSDOH.

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

### Schedules of Compliance

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

### Schedule(s) of Additional Submittals

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

### Best Management Practices (BMP) for Industrial Facilities

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