Ontario

Ministry of the Environment, Conservation and Parks
Ministère de l'Environnement, de la Protection de la nature et des Parcs

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 9451-CVFPU5
Issue Date: October 23, 2024

St. Marys Cement Inc. (Canada)
55 Industrial St
Toronto, ON M4G 3W9

Site Location: St. Marys Cement Inc.
410 Bowmanville Ave
Clarington, ON L1C 7B5

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

the administrative consolidation of existing Works, modifications to existing Works as well as the establishment of additional stormwater management Works, servicing an approximately 300 hectare site containing a cement plant, quarry, cement by-pass dust area and dock operations located at the above site address, for the discharge of non-contact cooling water, quarry dewatering discharge as well as for the collection, transmission, treatment and disposal of storm water runoff, to improve stormwater runoff quality at the site, discharging to Darlington Creek via an existing water quality monitoring station, consisting of the following Works:

Proposed Works:

- **Water Quality Unit "OGS 105" (catchment area 6.08 hectares):** one (1) oil and grit separator, Contech Model PMSU_4040-8-C (or Equivalent Equipment), located approximately 60 meters south-east of the truck wash pond, having a sediment storage capacity of 4,300 litres and an oil storage capacity of 1,970 litres, a treatment flow rate of approximately 170 litres per second, receiving runoff from an on-site private storm sewer system as well as from the existing truck wash pond described below, discharging via one (1) 600 mm storm sewer to a confluence manhole at the outlet of "SWMP2A";

- **Oil Separation Pond "SWMP 2A" (catchment area 3.54 hectares):** one (1) wet pond, located immediately south of the existing OGS and Monitoring Station, receiving stormwater runoff via overland sheetflow as well as non-contact cooling water from the cement plant via 600 mm diameter inlet pipe, complete with two (2) aqua booms installed in series and inverted outlet pipe elbow to provide oil containment in the event of a spill, providing a permanent pool volume of approximately 144 cubic meters, an active storage volume of approximately 1,319 cubic meters, discharging via one (1) 600 mm diameter outlet pipe to a confluence manhole combining pond effluent with quarry dewatering effluent towards the existing OGS and Monitoring Station described below;
- **Quarry Dewatering Holding Tank "SWMP 2B" (catchment area 85 hectares):** one (1) holding tank providing a storage volume of approximately 225 cubic meters, located immediately east of "SWMP 2A", receiving quarry dewatering effluent from the quarry sump via quarry discharge forcemain, complete with high and low level quarry pump sensors as well as one (1) pneumatic valve on the discharge outlet of the tank, a 600 mm diameter pipe to one (1) manual overflow with valve (normally closed) located upstream within the confluence manhole (MH108) combining quarry dewatering effluent with stormwater runoff and non-contact cooling water via a 600 mm diameter pipe for passive mixing, to maintain a set chloride discharge objective via improved flow control from the quarry, controlled by one (1) proposed conductivity sensor to be installed at MH109, prior to discharging via 600 mm diameter pipe to the existing OGS as described below;
- **Pre-Treatment Pond "SWMP 3" (catchment area 3.93 hectares):** one (1) wet pond with two (2) cells, located immediately south-east of the quarry dewatering mixing tank, receiving stormwater runoff via overland sheetflow as well as via two (2) 450 mm diameter inlet culverts, providing a permanent pool volume of approximately 203 cubic meters, an active storage volume of approximately 896 cubic meters, discharging via one (1) 525 mm diameter outlet pipe to a rip-rap lined stilling basin shared with SWMP4 and ultimately to the existing quarry sump;
- **Pre-Treatment Pond "SWMP 4" (catchment area 5.27 hectares):** one (1) wet pond, located immediately south-east of SWMP3, receiving stormwater runoff from the south-east plant area via overland sheetflow as well as via one (1) 600 mm diameter inlet culvert, providing a permanent pool volume of approximately 160 cubic meters, an active storage volume of approximately 415 cubic meters, discharging via one (1) 600 mm diameter outlet pipe to a rip-rap lined stilling basin shared with SWMP3 and ultimately to the existing quarry sump;
- **Stilling Basin (catchment area 9.2 hectares):** one (1) rip-rap lined basin, located immediately south-east of SWMP3, receiving stormwater runoff from SWMP3 and SWMP4, providing a permanent pool depth of approximately 0.8 meters, to minimize turbulence and erosion potential before discharge to the quarry, discharging via one (1) 600 mm diameter outlet pipe to the existing quarry sump;
- **Pre-Treatment Pond "SWMP 5" (catchment area 14.12 hectares):** one (1) wet pond with forebay, located immediately south of the plant area, receiving stormwater runoff from the south-west plant area via one (1) existing CSP culvert and existing ditches and receiving stormwater runoff from the south plant area via existing ditches to be regraded, a new 600 mm culvert and ditch which will enter into the main pond, providing a permanent pool volume of approximately 2,325 cubic meters, an active storage volume of approximately 5,162 cubic meters, discharging via one (1) 750 mm diameter outlet pipe to the existing SWMP6 via proposed vegetated ditches;

Existing Works to be modified:

- **Truck Wash Pond "SWMP 1" (catchment area 0.07 hectares):** re-configuration of one (1) existing wet pond, located at the northern site limit immediately south of the CN rail corridor, receiving inflow via one (1) 300 mm diameter inlet pipe, providing a permanent pool volume of approximately 146 cubic meters, an active storage volume of approximately 578 cubic meters, discharging via one (1) 300 mm diameter outlet pipe to Oil Grit Separator 105 described above;
- **Non-contact cooling water discharge:** one (1) on-site sewer system to convey non-contact cooling water water from the plant and storm water from the plant area via 600 mm diameter concrete pipe to the existing OGS, to be modified with intercepting manhole "106", to re-direct flow towards the proposed oil separation pond described above, complete with proposed shut off valves on MH106 (normally closed) to divert flow to an existing mixing chamber upstream of the existing OGS during maintenance of SWMP2A;
- **Infiltration Pond "SWMP7" (catchment area 26 hectares):** reconfiguration of one (1) existing infiltration pond, located at the southern end of the dock area; receiving runoff from stockpiles and the surrounding dock area via a series of ditches and culverts, to be modified with two (2) proposed forebays to improve sediment deposition, providing a permanent pool volume of approximately 5,500 cubic meters.

Existing Works:

- **Water Quality Unit "existing OGS" (catchment area 13.48 hectares):** one (1) oil/grit interceptor with associated diversion manholes and piping, with a total oil retention capacity of approximately 4,500 L, and maximum design flowrates for the capture of total suspended solids and oils, discharging to Darlington Creek via the Monitoring Station described below and 675 mm diameter outfall;
- **Infiltration Pond "SWMP6" (catchment area 22.87 hectares):** one (1) existing infiltration pond, located at the southern end of the cement by-pass area; receiving runoff from SWMP5 via a series of ditches and culverts, providing a permanent pool volume of approximately 11,000 cubic meters;
- **Monitoring Station and Outfall (catchment area 106 hectares):** one flume based discharge flow monitoring and automatic sampling structure located at the 675 mm diameter discharge outfall to Darlington Creek;

including erosion/sedimentation control measures during construction and all other controls and appurtenances essential for the proper operation of the aforementioned Works;

all in accordance with the submitted application and supporting documents listed in Schedule A forming part of this Approval.

For the purpose of this environmental compliance approval, the following definitions apply:

1. "Approval" means this entire Environmental Compliance Approval and any Schedules attached to it;

2. "Blowdown Water" means water that is discharged from a recirculating cooling water system or a boiler system for the purpose of controlling the level of water in the system or for the purpose of discharging from the system materials contained in the system the further build-up of which would impair the operation of the system;

3. "Cooling Water Effluent" means water and associated material that is used in an industrial process for the purpose of removing heat and that has not, by design, come into contact with Process Materials, but does not include Blowdown Water;

4. "Cooling Water Effluent Monitoring Stream" means a cooling water effluent stream on which a sampling point is maintained under Condition 10 (D);

5. "Cooling Water Effluent Sampling Point" means a sampling point maintained on a cooling water effluent stream under Condition 10 (D);

6. "Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;

7. "District Manager" means the District Manager of the appropriate local District Office of the Ministry, where the Works are geographically located;

8. "EPA" means the *Environmental Protection Act,* R.S.O. 1990, c.E.19, as amended;

9. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;

10. "Equivalent Equipment" means alternate piece(s) of equipment that meets the design requirements and performance specifications of the piece(s) of equipment to be substituted;

11. "Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the *Professional Engineers Act,* R.S.O. 1990, c. P.28;

12. "Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;

13. "Owner" means St. Marys Cement Inc. (Canada) and its successors and assignees;

14. "OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40, as amended;

15. "Pick-Up", in relation to a sample, means pick-up for the purpose of storage, including storage within an automatic sampling device, and transportation to and analysis at a laboratory;

16. "Plant" means the industrial facility and the developed property, waste disposal sites and waste water treatment facilities associated with it;

17. "Process Change" means a change in equipment, production processes, Process Materials or treatment processes;

18. "Process Effluent" means,

    a. effluent that, by design, has come into contact with Process Materials other than Process Materials stored in a materials storage site, including but not limited to a rock salts storage site, a waste rock storage site or a slag storage site,

    b. Blowdown Water,

    c. effluent that results from cleaning or maintenance operations at the Plant during a period when all or part of the Plant is shut down, and

    d. any effluent described in paragraphs (a) to (c) combined with Cooling Water Effluent or Storm Water Effluent;

19. "Process Effluent Monitoring Stream" means a process effluent stream on which a sampling point is maintained under Condition 10 (D);

20. "Process Effluent Sampling Point" means a sampling point maintained on a process effluent stream under Condition 10 (D);

21. "Process Materials", in relation to the Owner's Plant, means raw materials for use in an industrial process at the Plant, manufacturing intermediates produced at the Plant, or products or by-products of an industrial process at the Plant, but does not include chemicals added to cooling water for the purpose of controlling organisms, fouling and corrosion;

22. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;

23. "Quarter" means all or part of a period of three (3) consecutive months beginning on the first day of January, April, July or October;

24. "Semi-annual Period" means all or part of a period of six months beginning on the first day of January or July;

25. "Storm Water Effluent" means run-off from a storm event or thaw that is not used in any industrial process;

26. "Wastewater Treatment Facility" means a device or structure that is used to improve the quality of wastewater.

27. "Works" means the approved sewage works, and includes Proposed Works and Existing Works.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

1. The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the terms and conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

2. The Owner shall design, construct, operate and maintain the Works in accordance with the conditions of this Approval.

3. Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.

4. The issuance of, and compliance with the conditions of, this Approval does not:

    a. relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including, but not limited to, the obligation to obtain approval from the local conservation authority necessary to construct or operate the Works; or

    b. limit in any way the authority of the Ministry to require certain steps be taken to require the Owner to furnish any further information related to compliance with this Approval.

2. EXPIRY OF APPROVAL

1. This Approval will cease to apply to those parts of the Works which have not been constructed within **five (5) years** of the date of this Approval.

2. In the event that completion and commissioning of any portion of the Works is anticipated to be more than five (5) years, the Owner shall submit an application for extension at least **twelve (12) months** prior to the end of the five (5) years from the day of issuance of this Approval. The application shall include the reason(s) for the delay, whether there is any design change(s) and a review of whether the standards applicable at the time of Approval of the Works are still applicable at the time of request for extension, to ensure the ongoing protection of the environment.

3. CHANGE OF OWNER

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within **thirty (30) days** of the change occurring:

    a. change of address of Owner;

    b. change of Owner, including address of new owner;

    c. change of partners where the Owner is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Business Names Act, R.S.O. 1990, c. B.17* shall be included in the notification; or

    d. change of name of the corporation, and a copy of the most current information filed under the *Corporations Information Act, R.S.O. 1990, c. C39* shall be included in the notification.

2. In the event of any change in ownership of the Works, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the District Manager and the Director.

3. The Owner shall ensure that all communications made pursuant to this condition refer to the number of this Approval.

4. CONSTRUCTION OF PROPOSED WORKS

1. Upon the construction of the Works, the Owner shall prepare a statement, certified by a Licensed Engineering Practitioner, that the Works are constructed in accordance with this Approval, and upon request, shall make the written statement available for inspection by Ministry personnel.

2. Within **one (1) year** of the construction of the Proposed Works, a set of as-built drawings showing the Works "as constructed" shall be prepared. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the Works for the operational life of the Works.

5. OPERATION AND MAINTENANCE

1. The Owner shall make all necessary investigations, take all necessary steps and obtain all necessary approvals so as to ensure that the physical structure, siting and operations of the Works do not constitute a safety, health or flooding hazard to the general public.

2. The Owner shall undertake an inspection of the condition of the Works, at least once a year, and undertake any necessary cleaning and maintenance to ensure that sediment, debris and excessive decaying vegetation are removed from the Works to prevent the excessive build-up of sediment, oil/grit, debris and/or decaying vegetation, to avoid reduction of the capacity and/or permeability of the Works, as applicable. The Owner shall also regularly inspect and clean out the inlet to and outlet from the Works to ensure that these are not obstructed.

3. The Owner shall carry out and maintain an inspection and maintenance program on the operation of the manhole oil/grit separator in accordance with the manufacturer's recommendation.

4. The Owner shall ensure that the manhole for the oil/grit separator remains accessible year-round to facilitate maintenance access and spill response measures.

5. The Owner shall develop and use best management practices for on-site storage at the Dock Area used for bulk salt storage and other materials. Best management practices shall be implemented to prevent runoff or other adverse impacts entering Lake Ontario, especially during snow melting and precipitation.

6. The Owner shall ensure the immediate clean-out of the Works after a fuel or oil spill capture.

7. The Owner shall ensure that equipment and material for the containment, clean-up and disposal of fuel and oil and materials contaminated with such, is on hand and in good repair for immediate use in the event of:

    a. loss of fuel or oil to the Works; or

    b. a spill within the meaning of Part X of the EPA.

8. The Owner shall prepare an operations manual prior to the commencement of operation of the Works that includes, but is not necessarily limited to, the following information:

    a. operating and maintenance procedures for routine operation of the Works;

    b. inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;

    c. repair and maintenance programs, including the frequency of repair and maintenance for the Works;

d. contingency plans and procedures for dealing with potential abnormal situations and for notifying the District Manager; and

e. procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.

9. The Owner shall maintain an up to date operations manual and make the manual readily accessible for reference at the Works for the operational life of the Works. Upon request, the Owner shall make the manual available to Ministry staff.

10. The Owner shall maintain a logbook to record the results of these inspections and any cleaning and maintenance operations undertaken, and shall keep the logbook at the Works for inspection by the Ministry. The logbook shall include the following:

    a. the name of the Works;

    b. the date and results of each inspection, maintenance and cleaning, including an estimate of the quantity of any materials removed and method of clean-out of the Works; and

    c. the date of each spill within the catchment area, including follow-up actions and remedial measures undertaken.

11. The Owner shall retain for a minimum of **five (5) years** from the date of their creation, all records and information related to or resulting from the operation and maintenance activities required by this Approval.

6. TEMPORARY EROSION AND SEDIMENT CONTROL

1. The Owner shall install and maintain temporary sediment and erosion control measures during construction and conduct inspections **once every two (2) weeks** and after each significant storm event (a significant storm event is defined as a minimum of 25 millimetres of rain in any 24 hours period). The inspections and maintenance of the temporary sediment and erosion control measures shall continue until they are no longer required and at which time they shall be removed and all disturbed areas reinstated properly.

2. The Owner shall maintain records of inspections and maintenance which shall be made available for inspection by the Ministry, upon request. The record shall include the name of the inspector, date of inspection, and the remedial measures, if any, undertaken to maintain the temporary sediment and erosion control measures.

7. BYPASSES

1. The Owner shall not permit effluent that would ordinarily flow past a sampling point maintenance in this Approval to be discharged from the Owner's Plant without flowing past that sampling point, regardless of whether it would be convenient to do so because of a maintenance operation, a breakdown in equipment or any scheduled or unscheduled event.

8. EFFLUENT OBJECTIVES

1. The Owner shall design and undertake everything practicable to operate the Works in accordance with the following objectives:

    a. Effluent parameters design objectives listed in the table(s) included in **Schedule B**.

    b. Effluent from the Works is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film or sheen or foam or discolouration on the receiving waters.

2. In the event of an exceedance of the objective set out in subsection 1, the Owner shall:

    a. notify the District Manager as soon as possible during normal working hours;

    b. take immediate action to identify the source of contamination; and

    c. take immediate action to prevent further exceedance.

9. EFFLUENT LIMITS

A. GENERAL

1. The Owner shall design, construct and operate the Works such that the concentrations of the materials listed as effluent parameters in the effluent limits table in **Schedule B** are not exceeded in the effluent from the Works.

B. LETHALITY LIMITS

1. The Owner shall control the quality of each Process Effluent Monitoring Stream and each Cooling Water Effluent Monitoring Stream at the Owners's Plant to ensure that each rainbow trout acute lethality test and each *Daphnia magna* acute lethality test performed on any grab sample collected at a Process Effluent Sampling Point or Cooling Water Effluent Sampling Point at the Plant results in mortality for no more than fifty (50) per cent of the test organisms in hundred (100) per cent effluent.

10. EFFLUENT MONITORING

A. GENERAL

1. The Owner shall, upon commencement of operation of the Works, carry out a monitoring program, and all samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.

2. The Owner shall retain for a minimum of **five (5) years** from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

3. Despite Conditions 10 (K) to (P), the Owner need not collect samples from any Process Effluent or Cooling Water Effluent the Owner's Plant on a day on which Process Effluent is not being discharged from the Plant.

4. Where the Owner is required by this Approval to pick up a set of samples and analyze it for certain parameters, the Owner shall pick up a set of samples sufficient to allow all the analyses to be performed.

5. The Owner shall use all reasonable efforts to ensure that all analyses required by this Approval are completed as soon as reasonably possible and that the results of those analyses are made available to the Owner as soon as reasonably possible.

6. Subject to subsection (10) of this condition, the Owner shall pick up all samples required to be picked up at the Owner's Plant under Conditions 10 (K) and 10 (P) between the hours of 7 a.m. and 10. a.m.

7. If the District Manager is satisfied, on the basis of written submissions from the Owner, that the circumstances at the Owner's Plant are such that it would be impractical to Pick Up a set of samples from each Process Effluent, and Cooling Water Effluent Sampling Point maintained at the Plant under this Approval within the time period specified in subsection (4), the District Manager may give the Owner a written notice in respect of the Plant, varying the time period specified in subsection (7).

8. Subject to subsection (10) of this condition, where the Owner is required by Conditions 10 (K) and 10 (P) to pick up samples, the Owner shall pick up samples collected over the 24-hour period immediately preceding the Pick-Up.

9. The twenty-four (24)-hour period referred to in subsection (9) of this condition may be shortened or enlarged by up to three hours to permit the Owner to take advantage of the three-hour range specified in subsection (4) of this condition.

B. SAMPLING AND ANALYTICAL PROCEDURES

1. The methods and protocols for sampling, analysis, toxicity testing, and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

    a. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;

    b. the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition) as amended from time to time by more recently published editions;

    c. for any parameters not mentioned in the documents referenced in Paragraphs 2.a and 2.b, the written approval of the District Manager shall be obtained prior to sampling.

2. The Owner shall maintain the sampling equipment used at the Owner’s Plant for sampling required by this Approval in a way that ensures that the samples collected at the Plant under this Approval accurately reflect the level of discharge of total suspended solids from the Plant.

C. ALTERNATE SAMPLING PROCEDURES

1. Where the Owner is, by virtue of Condition 10 (B), required by the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended, to collect a composite sample for any sample required to be picked up at a stream at the Owner’s Plant under this Approval, the Owner may collect the composite sample by collecting three equal volume grab samples from the stream at intervals of at least two hours and combining them.

2. The Owner who is required to collect a composite sample from a Process Effluent Monitoring Stream under Condition 10 (K) may instead collect a single grab sample from the stream if the Process Effluent Monitoring Stream flows from a Wastewater Treatment Facility and the retention time calculated under subsection (3) of this condition in relation to the stream is two days or more.

3. A retention time in relation to a Process Effluent Monitoring Stream is the period of time in days that results from dividing the total available volume, expressed in cubic metres, of the wastewater treatment facilities on the stream by the average daily flow, expressed in cubic metres, of the stream.

4. For the purposes of subsection (3) of this condition, the total available volume of the wastewater treatment facilities on the Process Effluent Monitoring Stream is the volume of the wastewater treatment facilities that may be occupied by water on any day within the 90-day period preceding the date of the calculation of the retention time, taking into account,

a. any requirements that apply in respect of the operation of those facilities in any Act or in any approval, order, direction or other instrument issued under any Act; and

b. any solid waste or sludge contained within those facilities on the day of the calculation of the total available volume of those facilities.

5. For the purposes of subsection (3) of this condition, the average daily flow of the Process Effluent Monitoring Stream is the arithmetic mean of the 30 highest daily volumes calculated under Condition 10 (P) in relation to the stream within the ninety (90)-day period preceding the date of the calculation of the retention time.

6. The Owner may sample at a Process Effluent Monitoring Stream in the manner described in subsection (2) of this condition for the period of time during which the retention time calculated in relation to the stream is in effect.

7. A retention time calculated under this condition expires three hundred sixty five (365) days after the date on which the calculation is made or on the date that a new retention time is calculated under this condition, whichever date is sooner.

D. SAMPLING POINTS

1. Samples shall be collected and analyzed at the following sampling point(s), at the sampling frequencies and using the sample type specified for each parameter listed in the effluent monitoring table in Schedule B and subsection (2) of this condition.

2. The Owner shall maintain a sampling point on each Process Effluent, and Cooling Water Effluent at the Owners's Plant, as necessary so that the Plant loadings calculated under Conditions 10 (G) and 10 (H) for total suspended solids and the concentrations determined under Conditions 10 (K) and 10 (J) of total suspended solids accurately reflect the level of discharge of total suspended solids from the Plant.

3. The Owner need not establish a sampling point on a bypass.

4. If circumstances change so that a new sampling point is necessary at the Owners's Plant in order to permit the calculation of plant loadings under Conditions 10 (G) and 10 (H) for total suspended solids and the determination of concentrations under Conditions 10 (K) and 10 (J) of total suspended solids that accurately reflect the level of discharge of total suspended solids from the Plant, the Owner shall, within thirty (30) days of the change, establish the new sampling point and notify the District Manager in writing.

5. The Owner may, after notifying the District Manager in writing, eliminate a sampling point maintained under subsection (1) or (2) or established under subsection (4) of this condition if the sampling point is no longer necessary to permit the calculation of plant loadings under Conditions 10 (G) and 10 (H) for total suspended solids and the determination of concentrations under Conditions 10 (I) and 10 (J) of total suspended solids that accurately reflect the level of discharge of total suspended solids from the Plant.

6. For the purposes of this condition, a plant loading for total suspended solids or a concentration of total suspended solids that is based on analytical results that are significantly affected by dilution or masking due to the merging of streams upstream of a sampling point at the Plant is not a loading or a concentration that accurately reflects the level of discharge of total suspended solids from the Plant.

7. In determining what is necessary to meet the Owner's obligations to establish sampling points under this condition, the Owner shall consider both which streams should have sampling points and where on a stream a sampling point should be located.

E. REPORTS ON SAMPLING POINTS

1. The Owner shall keep an updated list and plot plan showing the sampling points maintained under this Approval at the Owners's Plant and submit to the Ministry upon request.

F. CALCULATION OF LOADINGS — GENERAL

1. For the purposes of performing a calculation under Condition 10 (G) to 10 (J), the Owner shall use the actual analytical result obtained by the laboratory.

2. Despite subsection (1) of this condition, where the actual analytical result is less than one-tenth of the analytical method detection limit set out in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended, the Owner shall use the value zero for the purpose of performing a calculation under Condition 10 (G) to 10 (J).

3. The Owner shall ensure that each calculation of a process effluent loading required by Condition 10 (G) and each calculation of a process effluent concentration required by Condition 10 (I) is performed as soon as reasonably possible after the analytical results on which the calculation is based become available to the Owner.

4. The Owner shall ensure that each calculation of a cooling water effluent loading required by Condition 10 (H) is performed in time to comply with Condition 12 (E)(3) and each calculation of a cooling water effluent concentration required by Condition 10 (J) is performed in time to comply with Condition 12 (E)(5).

G. CALCULATION OF LOADINGS — PROCESS EFFLUENT

1. The Owner shall calculate, in kilograms, a daily process effluent stream loading for total suspended solids in each process effluent monitoring stream of the Owner for each day on which a sample is collected under this Approval from the stream for analysis for total suspended solids.

2. When calculating a daily stream loading under subsection (1) of this condition, the Owner shall multiply, with the necessary adjustment of units to yield a result in kilograms, the analytical result obtained from the sample for total suspended solids by the daily volume of effluent, as determined under Condition 10 (Q), for the stream for the day.

3. The Owner shall calculate, in kilograms, a daily process effluent plant loading for total suspended solids for each day for which the Owner is required to calculate a daily process effluent stream loading for total suspended solids under subsection (1) of this condition.

4. For the purposes of subsection (3) of this condition, a daily process effluent plant loading for total suspended solids for a day is the sum, in kilograms, of the daily process effluent stream loadings for total suspended solids calculated under subsection (1) of this condition for the day.

5. Where the Owner calculates only one daily process effluent stream loading for total suspended solids for a day under subsection (1) of this condition, the daily process effluent plant loading for total suspended solids for the day for the purposes of subsection (3) of this condition is the single daily process effluent stream loading for total suspended solids for the day.

6. The Owner shall calculate, in kilograms, a monthly average process effluent plant loading for total suspended solids for each month in which a sample is collected under this Approval more than once from a Process Effluent Monitoring Stream at the Owner's Plant for analysis for total suspended solids.

7. For the purposes of subsection (6) of this condition, a monthly average process effluent plant loading for total suspended solids for a month is the arithmetic mean of the daily process effluent plant loadings for total suspended solids calculated under subsection (3) of this condition for the month.

H. CALCULATION OF LOADINGS — COOLING WATER

1. The Owner shall calculate, in kilograms, a daily cooling water effluent stream loading for total suspended solids in each Cooling Water Effluent Monitoring Stream of the Owner for each day on which a sample is collected under this Approval from the stream for analysis for total suspended solids.

2. When calculating a daily stream loading under subsection (1) of this condition, the Owner shall multiply, with the necessary adjustment of units to yield a result in kilograms, the analytical result obtained from the sample for total suspended solids by the daily volume of effluent, as determined under Condition 10 (Q), for the stream for the day.

3. The Owner shall calculate, in kilograms, a daily cooling water effluent plant loading for total suspended solids for each day for which the Owner is required to calculate a daily cooling water effluent stream loading for total suspended solids under subsection (1) of this condition.

4. For the purposes of subsection (3) of this condition, a daily cooling water effluent plant loading for total suspended solids for a day is the sum, in kilograms, of the daily cooling water effluent stream loadings for total suspended solids calculated under subsection (1) of this condition for the day.

5. Where the Owner calculates only one daily cooling water effluent stream loading for total suspended solids for a day under subsection (1) of this condition, the daily cooling water effluent plant loading for total suspended solids for the day for the purposes of subsection (3) of this condition is the single daily cooling water effluent stream loading for total suspended solids for the day.

6. The Owner shall calculate, in kilograms, a monthly average cooling water effluent plant loading for total suspended solids for each month in which a sample is collected under this Approval more than once from a Cooling Water Effluent Monitoring Stream at the Owner's Plant for analysis for total suspended solids.

7. For the purposes of subsection (6) of this condition, a monthly average cooling water effluent plant loading for total suspended solids for a month is the arithmetic mean of the daily cooling water effluent plant loadings for total suspended solids calculated under subsection (3) of this condition for the month.

I. CALCULATION OF CONCENTRATIONS — PROCESS EFFLUENT

1. The Owner shall calculate, in milligrams per litre, a monthly average concentration for total suspended solids in each Process Effluent Monitoring Stream of the Owner for each month.

2. For the purposes of subsection (1) of this condition, a monthly average concentration for total suspended solids for a month is the arithmetic mean of the analytical results obtained for total suspended solids from the samples collected under Condition 10 (K) from the stream for the month.

3. Where there is only one analytical result obtained for total suspended solids from the stream for a day, the daily concentration for total suspended solids for the stream for the day for the purposes of subsection (1) of this condition is the single analytical result obtained for total suspended solids.

J. CALCULATION OF CONCENTRATIONS — COOLING WATER EFFLUENT

1. The Owner shall calculate, in milligrams per litre, a monthly average concentration for total suspended solids in each Cooling Water Effluent Monitoring Stream of the Owner for each month.

2. For the purposes of subsection (1) of this condition, a monthly average concentration for total suspended solids for a month is the arithmetic mean of the analytical results obtained for total suspended solids from the samples collected under Condition 10 (P) from the stream for the month.

K. MONITORING – PROCESS EFFLUENT – WEEKLY

1. The Owner shall, on one day in each week, pick up a set of samples collected at each Process Effluent Sampling Point at the Owner's Plant and shall analyze each set of samples for total suspended solids.

2. There shall be an interval of at least four (4) days between successive Pick-Up days at the Plant under subsection (1) of this condition.

3. All samples picked up under subsection (1) of this condition in a week shall be picked up on the same day in the week.

L. MONITORING – PROCESS EFFLUENT – QUALITY CONTROL

1. On one day in each year, on a day on which samples are picked up at the Plant under Condition 10 (K)(1), the Owner shall collect and pick up a duplicate sample for each sample picked up on that day under Condition 10 (K)(1) at one Process Effluent Sampling Point at the Owner's Plant and shall analyze each duplicate sample for total suspended solids.

2. There shall be an interval of at least six (6) months between successive Pick-Up days at the Plant under subsection (1) of this condition.

M. MONITORING – ACUTE LETHALITY TESTING – RAINBOW TROUT

1. Where the Owner is required by this condition to perform a rainbow trout acute lethality test, the Owner shall perform the test according to the procedures described in the Environment and Climate Change Canada publication entitled "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout", as amended from time to time.

2. Each rainbow trout acute lethality test required by this condition shall be carried out as a single concentration test using hundred (100) per cent effluent.

3. On one day in each month, on a day on which samples are picked up at the Plant under Condition 10 (K)(1), the Owner shall collect and immediately pick up a grab sample at each Process Effluent Sampling Point at the Owner's Plant and shall perform a rainbow trout acute lethality test on each sample.

4. There shall be an interval of at least fifteen (15) days between successive Pick-Up days at the Plant under subsection (3) of this condition.

5. All samples picked up under subsection (3) of this condition in a month shall be picked up on the same day in the month.

6. Where the Owner has performed tests under subsection (3) of this condition for twelve (12) consecutive months, on samples collected from the same sampling point and the mortality of the rainbow trout in each test did not exceed fifty (50) per cent, the Owner is relieved of the obligations under subsection (3) of this condition relating to the sampling point and shall instead collect and immediately pick up a grab sample at the sampling point on one day in each Quarter and perform a rainbow trout acute lethality test on each sample.

7. Samples picked up at the Plant under subsection (6) of this condition shall be picked up on a day on which samples are picked up at the Plant under subsection (3) of this condition.

8. If no samples are being picked up at the Plant under subsection (3) of this condition during a Quarter, samples picked up at the Plant during the Quarter under subsection (6) of this condition shall be picked up on a day on which samples are picked up at the Plant under Condition 10 (K)(1).

9. There shall be an interval of at least forty-five (45) days between successive Pick-Up days at the Plant under subsection (6) of this condition.

10. All samples picked up under subsection (6) of this condition in ~~a~~ Quarter shall be picked up on the same day in the Quarter.

11. If a rainbow trout acute lethality test performed under subsection (6) of this condition on any sample from a sampling point results in mortality of more than fifty (50) per cent of the test rainbow trout, subsections (6) to (10) of this condition cease to apply in respect to samples from that sampling point, and the Owner shall instead comply with the requirements of subsection (3) of this condition relating to the sampling point, until the tests performed under subsection (3) of this condition on all samples collected from the sampling point for a further twelve (12) consecutive months result in mortality for no more than fifty (50) per cent of the rainbow trout for each test.

12. The Owner shall notify the Director in writing of any change in the frequency of acute lethality testing under this Approval at the Owner's Plant, within thirty (30) days after the day on which the change begins.

13. Subsections (2) to (12) of this condition apply with necessary modifications to each Cooling Water Effluent Sampling Point and, for the purpose, the reference in subsection (3) of this condition to each Process Effluent Sampling Point shall be deemed to be a reference to each Cooling Water Effluent Sampling Point and the reference in subsections (3) and (8) of this condition to Condition 10 (K)(1) shall be deemed to be a reference to Condition 10 (P)(1).

N. MONITORING – ACUTE LETHALITY TESTING – *DAPHNIA MAGNA*

1. Where the Owner is required by this condition to perform a *Daphnia magna* acute lethality test, the Owner shall perform the test according to the procedures described in the Environment Canada publication entitled "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna* ", as amended from time to time.

2. Condition 10 (M) (2) to (13) apply with necessary modifications to *Daphnia magna* acute lethality tests and, for the purpose, a reference to rainbow trout shall be deemed to be a reference to *Daphnia magna* .

3. The Owner shall pick up each set of samples required to be collected from a sampling point at the Owner's Plant under this condition on a day on which the Owner collects a sample from the sampling point under Condition 10 (M), to the extent possible having regard to the frequency of monitoring required at the sampling point under this condition and Condition 10 (M).

O. MONITORING – CHRONIC TOXICITY TESTING – FATHEAD MINNOW AND *CERIODAPHNIA DUBIA*

1. Where the Owner is required to perform a seven-day fathead minnow growth inhibition test, the Owner shall perform the test according to the procedure described in the Environment and Climate Change Canada publication entitled "Biological Test Method: Test of Larval Growth and Survival Using Fathead Minnows", as amended from time to time.

2. Where the Owner is required to perform a seven-day *Ceriodaphnia dubia* reproduction inhibition and survivability test, the Owner shall perform the test according to the procedure described in the Environment and Climate Change Canada publication entitled "Biological Test Method: Test of Reproduction and Survival Using the Cladoceran *Ceriodaphnia dubia* ", as amended from time to time.

3. On one day in each Semi-annual Period, on a day on which samples are picked up at the Plant under Condition 15(1), the Owner shall collect and immediately pick up a grab sample from each Process Effluent Sampling Point at the Owner's Plant, and shall perform a seven-day fathead minnow growth inhibition test and a seven-day *Ceriodaphnia dubia* reproduction inhibition and survivability test on each sample.

4. There shall be an interval of at least ninety (90) days between successive Pick-Up days at the Plant under subsection (3) of this condition.

5. All samples picked up under subsection (3) of this condition in a Semi-annual Period shall be picked up on the same day in the Semi-annual Period.

6. The Owner need not collect a sample from a sampling point in accordance with subsection (3) of this condition until twelve (12) consecutive monthly rainbow trout acute lethality tests and twelve (12) consecutive monthly *Daphnia magna* acute lethality tests performed on samples collected at the sampling point at the Owner's Plant result in mortality for no more than fifty (50) per cent of the test organisms in hundred (100) per cent effluent.

P. MONITORING – COOLING WATER EFFLUENT – WEEKLY ASSESSMENT

1. The Owner shall, on one day in each week, pick up a set of samples collected at each Cooling Water Effluent Sampling Point at the Owner's Plant and shall analyze each set of samples for total suspended solids.

2. There shall be an interval of at least four (4) days between successive Pick-Up days at the Plant under subsection (1) of this condition.

3. All samples picked up under subsection (1) of this condition in a week shall be picked up on the same day in the week.

Q. EFFLUENT FLOW MEASUREMENT

1. For the purposes of this condition, a volume of effluent for a stream for a day is the volume that flowed past the sampling point referenced in this Approval on the stream during the twenty four (24)-hour period preceding the Pick-Up of the first sample picked up from the stream for the day.

2. The Owner shall determine in cubic metres a daily volume of effluent for each process effluent stream at the Owner's Plant for each day on which a sample is collected under this Approval from the stream.

3. The Owner shall use flow measurement methods that allow the daily volumes for process effluent streams to be determined to an accuracy of within plus or minus fifteen (15) per cent.

4. The Owner shall determine in cubic metres a daily volume of effluent for each cooling water effluent stream at the Owner's Plant for each day on which a sample is collected under this Approval from the stream.

5. The Owner shall use flow measurement methods that allow the daily volumes for cooling water effluent streams to be determined to an accuracy of within plus or minus twenty (20) per cent.

6. The Owner shall determine by calibration or confirm by means of a certified report of a registered professional engineer of the Province of Ontario that each flow measurement method used under subsection (2) of this condition meets the accuracy requirements of subsection (3) of this condition, that each flow measurement method used under subsection (4) of this condition meets the accuracy requirements of subsection (5) of this condition.

7. Where, the Owner uses a new flow measurement method or alters an existing flow measurement method, the Owner shall determine by calibration or confirm by means of a certified report of a registered professional engineer of the Province of Ontario that each new or altered flow measurement method meets the accuracy requirements of subsection (3) or (5) of this condition, as the case may be, within two (2) weeks after the day on which the new or altered method or system is used.

8. The Owner shall develop and implement a maintenance schedule and a calibration schedule for each flow measurement system installed at the Owner's Plant and shall maintain each flow measurement system according to good operating practices.

9. The Owner shall use reasonable efforts to set up each flow measurement system used for the purposes of this condition in a way that permits inspection by a provincial officer.

R. CALCULATION OF PLANT VOLUMES

1. The Owner shall calculate, in cubic metres, a daily process effluent plant volume for each day.

2. For the purposes of subsection (1) of this condition, a process effluent plant volume for a day is the sum of the daily process effluent volumes determined under Condition 10 (Q) for the day.

3. The Owner shall calculate, in cubic metres, a monthly average process effluent plant volume for each month, by taking the arithmetic mean of the daily process effluent plant volumes calculated under subsection (1) of this condition for the month.

4. The Owner shall calculate, in cubic metres, a daily cooling water effluent plant volume for each day.

5. For the purposes of subsection (4) of this condition, a cooling water effluent plant volume for a day is the sum of the daily cooling water volumes determined under Condition 10 (Q) for the day.

6. The Owner shall calculate, in cubic metres, a monthly average cooling water effluent plant volume for each month, by taking the arithmetic mean of the daily cooling water effluent plant volumes calculated under subsection (4) of this condition for the month.

11. RECORD KEEPING

1. The Owner shall keep records of all analytical results obtained under Conditions 10, as well as all determinations and calculations made or performed under Condition 10.

2. The Owner shall keep records of all sampling and analytical procedures used in meeting the requirements of Condition 10 (B) , including, for each sample, the date, the time of Pick-Up, the sampling procedures used, and any incidents likely to affect the analytical results.

3. The Owner shall keep records of all retention times calculated under Condition 10 (C) .

4. The Owner shall keep records of the results of all monitoring performed under Conditions 10 (L) and 10 (M) to 10 (O).

5. The Owner shall keep records of all maintenance and calibration procedures performed under Condition 10 (Q).

6. The Owner shall keep records of all problems or malfunctions, including those related to sampling, analysis, acute lethality testing, chronic toxicity testing or flow measurement, that result or are likely to result in a failure to comply with a requirement of this Approval, stating the date, duration and cause of each malfunction, and including a description of any remedial action taken.

7. The Owner shall keep records of any incident in which Process Effluent is discharged from the Owner's Plant without flowing past a sampling point on a process effluent stream in accordance with this Approval before being discharged, stating the date, duration, cause and nature of each incident.

8. The Owner shall keep records of all process changes and redirections of or changes in the character of effluent streams that affect the quality of effluent at any sampling point referenced in this Approval at the Owner's Plant.

9. The Owner shall keep records of the location of each sampling point referenced in this Approval at the Owner's Plant.

10. The Owner shall make each record required by this condition as soon as reasonably possible and shall keep each such record for a period of five (5) years.

11. The Owner shall ensure that all records kept under this condition are available to Ministry staff at the Owner's Plant, on request, during the Plant's normal office hours.

12. REPORTING

A. GENERAL

1. **One (1) week** prior to the start-up of the operation of the Works, the Owner shall notify the District Manager (in writing) of the pending start-up date.

2. The Owner shall, upon request, make all reports, manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.

3. In addition to the obligations under Part X of the EPA and O. Reg. 675/98 (Classification and Exemption of Spills and Reporting of Discharges) made under the EPA, the Owner shall, within **fifteen (15) days** of the occurrence of any reportable spill as provided in Part X of the EPA and O. Reg. 675/98, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and a schedule of implementation.

4. The Owner shall prepare performance reports on a calendar year basis and submit to the District Manager by March 31 of the calendar year following the period being reported upon. The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period:

    a. a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 9, including an overview of the success and adequacy of the Works;

    b. a description of any operating problems encountered and corrective actions taken;

    c. a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works, including an estimate of the quantity of any materials removed from the Works;

    d. a summary of the calibration and maintenance carried out on all effluent monitoring equipment;

    e. a summary of any effluent quality assurance or control measures undertaken in the reporting period;

    f. a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 8.

    g. a summary of any complaints received during the reporting period and any steps taken to address the complaints;

    h. a summary of all spill or abnormal discharge events; and

    i. any other information the District Manager requires from time to time.

B. REPORTS AVAILABLE TO THE PUBLIC

1. On or before June 1 in each year, the Owner shall prepare a report relating to the previous calendar year and including,

    a. a summary of plant loadings calculated under Conditions 10 (G) and 10 (H);

    b. a summary of concentrations determined under Conditions 10 (I) and 10 (J);

    c. a summary of retention times calculated under Condition 10 (C);

    d. a summary of the results of monitoring performed under Condition 10 (K) and Conditions 10 (M) to 10 (P);

e. a summary of calculations performed under Condition 10 (Q) (2) and (4); Condition 10 (R) (1) and (4);

f. a summary of the concentrations or other results that exceeded a limit prescribed by Condition 9; and

g. a summary of the incidents in which Process Effluent was discharged from the Owner's Plant without flowing past a sampling point on a process effluent stream in accordance with this Approval before being discharged.

2. The Owner shall ensure that each report prepared under subsection (1) of this condition is available to any person at the Owner's Plant, on request during the Plant's normal office hours.

3. The Owner shall provide the Director, upon request, with a copy of any report that the Owner has prepared under subsection (1) of this condition.

C. REPORTS TO THE DISTRICT MANAGER – GENERAL

1. The Owner shall notify the District Manager in writing of any Process Change or redirection of or change in the character of an effluent stream that affects the quality of effluent at any sampling point referenced in this Approval at the Owner's Plant, within thirty (30) days of the change or redirection.

2. The Owner need not comply with subsection (1) of this condition where the effect of the change or redirection on effluent quality is of less than one (1) week's duration.

D. REPORTS TO THE DISTRICT MANAGER – INCIDENT

1. The Owner shall report any incident in which Process Effluent is discharged from the Owner's Plant without flowing past a sampling point on a process effluent stream in accordance with this Approval before being discharged.

2. The Owner shall report any concentration or other result that exceeds a limit prescribed by Condition 9.

3. A report required under subsection (1) or (2) of this condition shall be given orally, as soon as reasonably possible, and in writing, as soon as reasonably possible.

E. QUARTERLY REPORTS TO THE DISTRICT MANAGER

1. The Owner shall prepare a Quarterly Report (for the purpose of this condition, "Quarter" means a period of three (3) consecutive months beginning on the first day of January, April, July or October) no later than forty five (45) days after the end of each Quarter, and via Ministry on-line submission platform/portal submit to the District Manager in an electronic format. The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period (throughout the Quarter as required by subsections (3) to (10) of this condition):

2. A report under this condition shall include all information included in a report given under Condition 12 (D) during the Quarter.

3. The Owner shall report, for each month in the Quarter, the monthly average plant loadings and the highest and lowest daily plant loadings calculated under Conditions 10 (G) and 10 (H) for total suspended solids.

4. The Owner shall report, for each month in the Quarter, the monthly average concentrations calculated under Condition 10 (I) and the highest and lowest analytical results obtained under Condition 10 (K) for total suspended solids in each Process Effluent Monitoring Stream at the Owner's Plant.

5. The Owner shall report, for each month in the Quarter, the monthly average concentrations calculated under Condition 10 (J) and the highest and lowest analytical results obtained under Condition 10 (P) for total suspended solids in each Cooling Water Effluent Monitoring Stream at the Owner's Plant.

6. The Owner shall report, for each month in the Quarter, the monthly average process effluent plant volume and the highest and lowest daily process effluent plant volumes calculated under Condition 10 (R).

7. The Owner shall report, for each month in the Quarter, the monthly average cooling water effluent plant volume and the highest and lowest daily cooling water effluent plant volumes calculated under Condition 10 (R).

8. The Owner shall report the number of days in each month in the Quarter on which Process Effluent, or Cooling Water Effluent was discharged from the Owner's Plant.

9. The Owner shall report, for each month in the Quarter, the highest and lowest pH results obtained for each Process Effluent Monitoring Stream at the Owner's Plant.

F. REPORTS TO THE DISTRICT MANAGER – CHRONIC TOXICITY TESTING

1. A report under this condition shall be submitted to the District Manager in the manner and form the District Manager specifies from time to time.

2. A report under subsection (1) of this condition shall include a plot of percentage reduction in growth or reproduction against the logarithm of test concentration and shall include a calculation of the concentration at which a twenty-five (25) per cent reduction in growth or reproduction would occur.

The reasons for the imposition of these terms and conditions are as follows:

1. Condition 1 is imposed to ensure that the Works are constructed and operated in the manner in which they were described and upon which approval was granted. This condition is also included to emphasize the precedence of conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. Condition 1.4 is included to emphasize that the issuance of this Approval does not diminish any other statutory and regulatory obligations to which the Owner is subject in the construction, maintenance and operation of the Works. The Condition specifically highlights the need to obtain any necessary conservation authority approvals. The Condition also emphasizes the fact that this Approval doesn't limit the authority of the Ministry to require further information.

2. Condition 2 is included to ensure that, when the Works are constructed, the Works will meet the standards that apply at the time of construction to ensure the ongoing protection of the environment.

3. Condition 3 is included to ensure that the Ministry records are kept accurate and current with respect to the approved Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.

4. Condition 4 is included to ensure that the Works are constructed in accordance with the approval and that record drawings of the Works "as constructed" are maintained for future references.

5. Condition 5 is included as regular inspection and necessary removal of sediment and excessive decaying vegetation from the Works are required to mitigate the impact of sediment, debris and/or decaying vegetation on the treatment capacity of the Works. The Condition also ensures that adequate storage is maintained in the Works at all times as required by the design. Furthermore, this Condition is included to ensure that the Works are operated and maintained to function as designed.

6. Condition 6 is included as installation, regular inspection and maintenance of the temporary sediment and erosion control measures is required to mitigate the impact on the downstream receiving watercourse during construction until they are no longer required.

7. Condition 7 regarding Bypasses is included to indicate that Bypass is prohibited, except in circumstances where the failure to Bypass could result in greater damage to the environment than the Bypass itself. The notification and documentation requirements allow the Ministry to take action in an informed manner and will ensure the Owner is aware of the extent and frequency of Bypass Events.

8. Condition 8 is imposed to establish non-enforceable effluent quality objectives which the Owner is obligated to use best efforts to meet on an ongoing basis. Also imposed are procedures to be followed to minimize environmental impact in the event the objectives are exceeded.

9. Condition 9 is imposed to ensure that the effluent discharged from the Works meets the Ministry's effluent quality requirements, as specified, on a continuous basis, thus minimizing environmental impact on the receiver.

10. Condition 10 is included to require the Owner to demonstrate on a continual basis that the quality and quantity of the effluent from the approved Works is consistent with the design and effluent objectives specified in the Approval and that the approved Works does not cause any impairment to the receiving watercourse.

11. Condition 11 is included to require that all records are retained for a sufficient time period to adequately evaluate the long-term operation and maintenance of the Works.

12. Condition 12 is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for all the terms and conditions outlined in this Approval, so that the Ministry can work with the Owner in resolving any problems in a timely manner.

Schedule A

1. Application for Sewage Works Approval submitted by St. Mary's Cement Co. Ltd., dated December 14, 1967 and all supporting documentation and information.

2. Application for Sewage Works Approval submitted by Blue Circle Cement, a Division of Blue Circle Cement Inc., dated September 2, 1999 and all supporting documentation and information.

3. Application for Industrial Sewage Works Approval submitted by Blue Circle Cement, a Division of Blue Circle Canada Inc., dated June 16, 2000 and all supporting documentation and information.

4. Application for Approval of Industrial Sewage Works submitted by St. Mary's Cement Inc. (Canada), dated July 26, 2005 and all supporting documentation and information.

5. Environmental Compliance Approval Application for Industrial Sewage Works submitted by St. Marys Cement Inc. (Canada), dated December 27, 2022 and received on December 30, 2022, and all supporting documentation and information.

6. Stormwater Management Report "St. Marys Cement Bowmanville" dated December 29, 2023, including calculations and engineering drawings, prepared by GHD Limited.

7. Memo "11221219-LTR-1", dated October 5, 2023 including calculations and engineering drawings, prepared by GHD Limited.

Schedule B

Effluent Objectives and Limits Table
(measured at the sampling location identified in column 2)

Effluent Parameter	Sampling Location	Objectives	Compliance Limits
Total Suspended Solids	MISA Outfall	N/A	25 mg/L (monthly average)
Conductivity*	MISA Outfall	2,300 uS/cm	3,400 uS/cm (monthly average)
pH	MISA Outfall	6.5 - 8.5 inclusive	6.5 - 9.0 inclusive
Temperature	Darlington Creek Downstream of Outfall	<10 °C above Darlington Creek Upstream	N/A
Acute Lethality - Rainbow Trout, Daphnia Magna	MISA Outfall	Mortality below 50%	N/A
Chronic Toxicity - Fathead Minnow	MISA Outfall	N/A	N/A
Chronic Toxicity - Ceriadaphnia Dubia	MISA Outfall	N/A	N/A

*Note: An effluent objective for chloride is set up at 640 mg/L according to CCME guideline for the protection of aquatic life. Real-time conductivity is monitored as a surrogate for chloride. Based on established correlation between conductivity and chloride, 2300 uS/cm is equivalent to a chloride ion concentration of 640 mg/L. Effluent compliance limit (3400 uS/cm) is equivalent to a chloride ion concentration of 1000 mg/L.

Effluent Monitoring Table

(measured at the sampling location identified in columns 3 to 7)

Effluent Parameter	Sample Type	Sampling Point/Frequency				
		MISA Outfall	**Quarry Discharge**	**Darlington Creek Upstream**	**Darlington Creek Downstream**	**Outlet to Lake Ontario**
Total Suspended Solids	Grab	Weekly		N/A	N/A	N/A
Conductivity	Sensor/ Grab	Daily[1] (Sensor)	Semi-annually (Grab)	N/A	N/A	N/A
pH	Sensor/ Grab	Daily[1] (Sensor)	Semi-annually (Grab)	N/A	N/A	N/A
Temperature	Sensor	Daily[1]	N/A	Daily	Daily	
pH (field), Temp (field), Alkalinity, hardness, sodium, chloride, sulphate, conductivity, TSS, Ammonia-N, Un-ionized Ammonia (calculated), metals	Grab	Quarterly	Semi-annually	Semi-annually	N/A	Semi-annually
Acute Lethality - Rainbow Trout, Daphnia Magna	Grab	Quarterly[2]	N/A	N/A	N/A	N/A
Chronic Toxicity - Fathead Minnow, Ceriadaphnia Dubia	Grab	Semi-annually[3]	N/A	N/A	N/A	N/A

Note 1: Daily values are calculated by averaging continuous monitoring data when it is monitored by Sensor.
Note 2: If quarterly tests fail, the test frequency shall change to monthly. Upon 12 consecutive months of passed tests, the frequency shall revert to quarterly. For details refer to conditions 10 (M) and (N).
Note 3: Testing is only triggered in the event of a failed acute lethality test. For details refer to condition 10 (O).

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 4-101-67-686 (including Notices 1-7), 3638-5LHKE3 (including Notice 1) issued on February 16, 1968, May 9, 2003

In accordance with Section 139 of the *Environmental Protection Act,* you may by written notice served upon me and the Ontario Land Tribunal within 15 days after receipt of this notice, require a hearing by the Tribunal. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Notice") shall state:

a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the *Environmental Protection Act,* a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

Registrar*
Ontario Land Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5
OLT.Registrar@ontario.ca

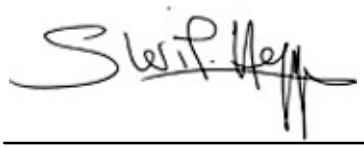
and

The Director appointed for the purposes of Part II.1 of the *Environmental Protection Act*
Ministry of the Environment, Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.gov.on.ca**

The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act.*

DATED AT TORONTO this 23rd day of October, 2024



Sherif Hegazy, P.Eng.
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

MS/
c: District Manager, MECP York-Durham
Dilan Singaraja P.Eng., GHD