

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 0545-BVURW2
Issue Date: December 17, 2020

3M Canada Company
300 Tartan Dr
London, ON N5V 4M9

Site Location: 60 and 80 California Avenue
City of Brockville, ON K6V 7N5

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:

modifications to existing stormwater management works servicing a manufacturing site located at 60 and 80 California Avenue in the City of Brockville, for the collection, transmission, treatment and disposal of storm water runoff from a total catchment area of approximately 8.7 hectares, to provide Enhanced Level water quality protection and erosion control and to attenuate post-development peak flows to pre-development peak flows for all storm events up to and including the 100 year storm event, discharging to existing municipal storm sewers, consisting of the following:

Proposed Works:

- **storm sewers (catchment area 1.35 hectares)** on-site storm sewers designed to convey the external 100-year storm event resulting from off-site drainage areas, located north of the 504 building, approximately 30 meters in length, discharging to the municipal storm sewer on California Avenue;
- **infiltration trench (catchment area 0.2 hectares)**, one (1) infiltration trench located east of the proposed manufacturing building at 80 California Avenue (504 Building), with a length of 61 metres, a width of 1.75 metres and a depth of 0.9 metres, receiving surface runoff from a landscaped area to be distributed via 100 mm diameter perforated pipe wrapped in filter sock, with a total available storage volume of 38.4 cubic metres provided via 50 millimetre diameter clear stone wrapped in non-woven filter cloth Terrafix 270R (or approved Equivalent) over a 150 mm sand filter, complete with 100 mm diameter monitoring well;
- **storm sewers (catchment area 1.6 hectares)** on-site storm sewers designed to convey the 100-year storm event, located north and west of the proposed 504 building, approximately 223 meters in length, discharging to the dry pond identified below;

- **stormwater management facility (catchment area 4.71 hectares):** one (1) existing dry pond, located at 60 California Avenue north of the 501 building, receiving runoff from 80 California Avenue through one (1) 600 mm diameter storm sewer and drainage swale and from three (3) existing storm sewers including one (1) 525 mm diameter outlet as well as two (2) 300 mm diameter storm sewer outlets conveying runoff from the north portion of the 501 building at 60 California Avenue, a portion of undeveloped land north of Building 501 and the parking lot east of the dry pond, having an active storage volume of 2,189 cubic metres during the 100-year storm event, discharging via one (1) 300 mm diameter outlet pipe controlled by one (1) 114 mm orifice plate to the oil and grit separator identified below;
- **oil and grit separator (catchment area 4.85 hectares):** one (1) existing oil and grit separator, Vortechs System Model 2000 (or Equivalent Equipment), located at 60 California Avenue, having a sediment storage capacity of 0.91 cubic metres, an oil storage capacity of 629 litres, a total storage volume of approximately 3,398 litres, a maximum treatment flow rate of 79 litres per second, receiving inflow from the dry pond identified above, discharging via a 300 millimetre diameter storm sewer to the municipal storm sewer on California Avenue (North Outlet);

Existing Works:

Storm Water Management System

South Side

- one (1) 300 millimetre diameter concrete storm sewer with two (2) manholes, starting from CB1, located south-west of the Loading Dock Addition Pad, and running south and then east, along the southern perimeter of the Site to the south side oil/grit separator;
- five (5) catch basins, tied into the storm sewer along its path, conveying storm water drainage from an area of approximately 1.9 hectares, with each catch basin equipped with an Inlet Flow Control Device (ICD) and the area around each catch basin being used for storage, up to a maximum depth of 0.3 metres for a 100 year storm;
- one (1) swirl-type, oil/grit separator, (or approved equivalent), located in the southeast corner of the Site, rated for a 5 year post-development storm flow of 79 Litres per second, including 0.91 cubic metres of sediment storage, conveying area storm drainage via a 300 millimetre diameter concrete sewer connection to the 900 millimetre nominal diameter, City of Brockville Storm Sewer running south along California Avenue;
- for each of the five (5) catch basins described above, a local sub-drainage system of 150 millimetre diameter perforated, filter sock-protected, corrugated HDPE pipe laid out around each catch basin, with two (2), 150 millimetre diameter, non-perforated, corrugated HDPE sub-drains inletting to each catch basin from opposite sides;
- one (1) 250 millimetre diameter PVC drain to convey roof drainage from the Loading Dock Addition/Welding Plant Office of approximately 0.12 hectares to the paved area just east of CB1;

North Side

- one (1) surface rip rap lined swale inlet from the North Parking Area to a Storm Water Dry Detention Pond;
- one (1), storm sewer consisting of a 375 millimetre diameter concrete section from catch basin CB1, to catch basin/manhole CBMH2, both located west of building 501, and a 525 millimetre diameter PVC section from CBMH2, conveying storm water drainage from a paved area of approximately 0.42 hectares to a rip rap lined discharge area in the Storm Water Dry Detention Pond;
- one (1), 300 millimetre diameter roof drain to convey drainage from approximately 0.24 hectares of roof from the building 501, directly to the Detention Pond via a rip rap lined entry;
- one (1), 300 millimetre diameter concrete storm sewer along with a manhole at the Outdoor Truck Receiving Area running north from the Truck Receiving Area and then east to convey storm drainage from an area of approximately 0.14 hectares to the north side oil/grit separator, equipped with a manual shut off valve, to be closed during loading/unloading operations to prevent spilled material from entering the storm sewer as well as one (1) connecting sewer which conveys manually pumped uncontaminated sump water, after visual inspection, from the Indoor Truck/Tank Car Receiving Area

Central Roof Drain

- one (1) 457 millimetre diameter concrete roof drain to convey drainage from the 1.34 hectare Building roof and a 0.80 hectare open area, directly to the 900 millimetre nominal diameter, City of Brockville Storm Sewer running south along California Avenue;

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 document and any schedules attached to it, and the application;
2. "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;
3. "District Manager" means the District Manager of the appropriate local District Office of the Ministry, where the Works are geographically located;
4. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19, as amended;
5. "Existing Works" means those portions of the sewage works constructed and previously approved under an Approval;

6. "Equivalent Equipment" means a substituted equipment or like-for-like equipment that meets the required quality and performance standards of a named equipment;
8. "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;
9. "Owner" means 3M Canada Company and its successors and assignees;
10. "OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40, as amended;
11. "Proposed Works" means the sewage works described in the Owner's application, and this Approval, to the extent approved by this Approval;
13. "Works" means the sewage works described in the Owner's application, and this Approval, 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 CONDITION

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:
 1. 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 sewage works; or

2. 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. 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:
 1. change of address of Owner;
 2. change of Owner, including address of new owner;
 3. 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.B17 shall be included in the notification to the District Manager; or
 4. change of name of the corporation where the Owner is or at any time becomes a 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 to the District Manager.
2. In the event of any change in ownership of the Works, other than a change to a successor municipality, 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 at the top of this Approval.

4. CONSTRUCTION OF THE WORKS

1. Upon the construction of the Works, the Owner shall prepare a statement, certified by a Professional Engineer, 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 six months of the construction of the 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 construct, operate and maintain the Works with the objective that the 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, sheen, foam or discoloration on the receiving waters.
4. The Owner shall ensure the immediate clean-out of the Works after a fuel or oil spill capture.
5. 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:
 1. loss of fuel or oil to the Works; or
 2. a spill within the meaning of Part X of the EPA.

6. 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:
 1. operating and maintenance procedures for routine operation of the Works;
 2. inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;
 3. repair and maintenance programs, including the frequency of repair and maintenance for the Works;
 4. contingency plans and procedures for dealing with potential spills and any other abnormal situations and for notifying the District Manager; and
 5. procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.
7. 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.
8. 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:
 1. the name of the Works;
 2. 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
 3. the date of each spill within the catchment area, including follow-up actions and remedial measures undertaken.
9. 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. EFFLUENT MONITORING

1. The Owner shall, upon commencement of operation of the sewage 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. Samples shall be collected and analyzed at the sampling point(s), sampling frequencies and using the sample type specified for each parameter listed in the effluent monitoring table in Schedule B.
3. 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:
 1. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions;
 2. the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition) as amended from time to time by more recently published editions.
4. The measurement frequencies specified in the effluent monitoring table in Schedule B in respect of any parameter are minimum requirements which may, after 24 months of monitoring in accordance with this Condition, be modified by the Director in writing from time to time.

5. The Owner may request that the Director approve changes to the monitoring program after the Owner has provided notification to the District Manager in accordance with the recommendations of the annual report. The Owner shall make clear reference to the proposed changes in a separate letter that shall accompany the annual performance report.
6. In addition to the sampling points and sampling frequencies specified in schedule B, quarterly samples representative of the Influent prior to entering the OGS units shall be taken upstream of sampling points (1) and (2) for the first year after the issue date of this approval and results shall be included with the annual performance report.
7. 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.

8. REPORTING

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. The Owner shall prepare a performance report within ninety (90) days following the end of the period being reported upon and submit the report(s) to the District Manager. The first such report shall cover the first annual period following the commencement of operation of the Works and subsequent reports shall be prepared to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:
 1. a summary and interpretation of all monitoring data including an overview of the success and adequacy of the sewage Works;
 2. a description of any operating problems encountered and corrective actions taken;
 3. 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;
 4. a summary of the calibration and maintenance carried out on all effluent monitoring equipment;
 5. a summary of any effluent quality assurance or control measures undertaken in

the reporting period;

7. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
8. a summary of all spill or abnormal discharge events; and
9. any other information the District Manager requires from time to time.

Schedule A

1. Application for Approval of Industrial Sewage Works dated April 24, 2006 and signed by Martin Osso, Plant Manager, Brockville Plant, 3M Canada Company.
2. A Storm Water Management Assessment and Implementation Plan, dated April 2006 and prepared by Earth Tech Canada, London, Ontario.
3. An information letter dated June 27, 2006 from John D. Armistead, Project Manager, Earth Tech Canada, London, Ontario.
4. An information letter dated July 12, 2006 from Brian R. Richert, P.Eng., Project Engineer, Earth Tech Canada, London, Ontario, with a revised Figure 4.2.
5. Application for Approval of Industrial Sewage Works dated December 5, 2007 and signed by Terry Bowman, Plant Manager, Brockville Plant, 3M Canada Company.
6. Application for Approval of Sewage Works dated February 3, 2011 and signed by Graham Brown, Production Manager, Brockville Plant, 3M Canada Company.
7. An information letter dated July 21, 2011 from Fayme Taylor, Environmental Coordinator, Brockville Plant, 3M Canada Company.
8. Application for Environmental Compliance Approval, dated October 9, 2020 and received on October 13, 2020, submitted by GHD Ltd. on behalf of 3M Canada Company;
9. Stormwater Management & Servicing Design Brief, dated October 7, 2020, prepared by Groundwork Engineering Ltd.;
10. Report titled "Stormwater Management Assessment - 3M N95 Respirator Manufacturing Facility, Brockville, Ontario - Modelling Update" dated November 20, 2020 and revised November 30, 2020, prepared by GHD Ltd.;
11. "Attachment E GW-20035 - 3M Brockville ECA and MECP Response" along with associated engineering drawings stamped and dated on November 20, 2020 prepared by Groundwork Engineering Ltd.; and
12. Emails from GHD Ltd. dated November 20, 2020, November 26, 2020, November 30, 2020, December 7, 2020, December 9, 2020, December 11, 2020 and December 15, 2020.

Schedule B

Effluent Monitoring Table

Sampling Points:

- (1) South Side Oil/Grit Separator Effluent prior to entering the City Storm Sewer**
- (2) North Side Oil/Grit Separator Effluent prior to entering the City Storm Sewer**
- (3) Central Roof Drain prior to entering the City Storm Sewer**

Effluent Parameter	Frequency	Sampling Points	Sample Type
Total Suspended Solids (TSS)	Quarterly*	(1), (2), (3)	First Flush Grab
Copper	Quarterly*	(1), (2), (3)	First Flush Grab
Zinc	Quarterly*	(1), (2), (3)	First Flush Grab
pH and hardness	Quarterly*	(1), (2), (3)	First Flush Grab
Oil and Grease	Quarterly*	(1), (2), (3)	First Flush Grab
	*Quarterly sampling should be conducted over the course of the year in order to capture the first flush runoff following a significant precipitation event.		

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 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.
8. Condition 8 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.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 5087-8EYJ2A issued on September 22, 2011

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing 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:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Minister of the Environment,
Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario
M7A 2J3

AND

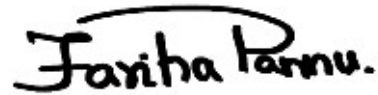
The Director appointed for the purposes of
Part II.1 of the Environmental Protection Act
Ministry of the Environment,
Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <https://ero.ontario.ca/>, you can determine when the leave to appeal period ends.

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

DATED AT TORONTO this 17th day of December, 2020



Fariha Pannu, P.Eng.

Director

appointed for the purposes of Part II.1 of the
Environmental Protection Act

MS/

c: District Manager, MECP Kingston - District
Dilan Singaraja, GHD Limited