

ENVIRONMENTAL COMPLIANCE APPROVALNUMBER 5203-AN6NGV
Issue Date: June 29, 2017

Lafarge Canada Inc. and Steed & Evans Holdings Inc.
operating as Nelson Aggregate Co.
Post Office Box, No. 1070
Burlington, Ontario
L7R 4L8

Site Location: Burlington Quarry - Nelson Aggregates
2433 No. 2 Side Rd
City of Burlington, Regional Municipality of Halton
L7P 0G8

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:

Existing sewage works for the collection, transmission, treatment and disposal of surface water and quarry water from Burlington Quarry - Nelson Aggregates located in City of Burlington, Ontario, Consisting of the following:

- one (1) settling pond (North Pond), collecting groundwater and surface water runoff from the active area of the quarry, with an estimated storage volume of 230,000 m³ at an average depth of 2.4 m, equipped with a discharge sump within the pond and submersible pump (North Discharge), discharging at a maximum release rate of 4,090 L/min to the roadside ditch of Colling Road and a tributary watercourse of Bronte Creek;
- one (1) settling pond (South Pond), collecting groundwater and surface water runoff from the active area of the quarry, with an estimated storage volume of 204,800 m³ at an average depth of 1.8 m, equipped with a discharge sump within the pond and submersible pump (South Discharge), discharging at a maximum release rate of 945 L/min to the West Mount Nemo Tributary;

including all other controls, electrical equipment, instrumentation, piping, pumps, valves and associated appurtenances for the proper operations of the aforementioned sewage works;

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

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

"Approval" means this entire document including the application and any supporting documents listed in any schedules in this Approval;

"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;

"District Manager" means the District Manager of the Halton-Peel District Office of the Ministry;

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

"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;

"Owner" means Lafarge Canada Inc. and Steed & Evans Holdings Inc. operating as Nelson Aggregate Co. and its successors and assignees;

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

"Works" means the sewage works described in the Owner's application, and this Approval.

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) Except as otherwise provided by these terms and conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with this Approval.

(3) Where there is a conflict between a provision of this environmental compliance approval and any document submitted by the Owner, the conditions in this environmental compliance approval shall take precedence. Where there is a conflict between one or more of the documents submitted by the Owner, the Application shall take precedence unless it is clear that the purpose of the document was to amend the application.

(4) Where there is a conflict between the documents listed in the Schedule A, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.

(5) The terms and conditions of this Approval are severable. If any term and condition of this environmental compliance approval, or the application of any requirement of this environmental compliance approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

(6) 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 sewage 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. 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 Owner;

(b) change of address of the 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. B17 shall be included in the notification to the District Manager;

(d) 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 in ownership to the municipal, i.e. assumption of the Works, the Owner shall notify the succeeding owner in writing of the existence of this Approval, and a copy

3. OPERATIONS MANUAL

(1) The Owner shall prepare an operations manual for the sewage works described in this Approval within three months of the date of its issuance including, but not necessarily limited to, the following information:

(a) operating 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 spill, bypasses and any other abnormal situations and for notifying the District Manager; and

(e) complaint procedures for receiving and responding to public complaints.

(2) The Owner shall maintain the operations manual up to date through revisions undertaken from time to time and retain a copy at the location of the sewage works. Upon request, the Owner shall make the manual available for inspection and copying by Ministry personnel.

4. EFFLUENT LIMITS

(1) The Owner shall operate and maintain the Works such that the compliance limits of the materials named below as effluent parameters are not exceeded in the effluent from the works.

Table 1 - Effluent Limits	
Effluent Parameter	Concentration Limit (milligrams per litre unless otherwise indicated)
Column 1	Column 2
Total Suspended Solids	25.0
Oil and Grease	15.0
pH of the effluent maintained between 6.5 to 8.5, inclusive, at all times	

(2) For the purposes of determining compliance with and enforcing subsection (1):

(a) non-compliance with respect to a Concentration Limit is deemed to have occurred when any single (grab) sample analyzed for a parameter named in Column 1 of subsection (1) is greater than the corresponding maximum concentration set out in Column 2 of subsection (1);

(b) non-compliance with respect to pH is deemed to have occurred when any single measurement is outside of the indicated range.

5. EFFLUENT - VISUAL OBSERVATIONS

Notwithstanding any other condition in this certificate, the Owner shall ensure 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 or foam on the receiving waters.

6. OPERATION AND MAINTENANCE

(1) The Owner shall inspect the Works at least once a year and periodically measure the amount of sediment accumulating in the settling ponds and remove the sediment, if necessary, to ensure continued suspended solids removal performance of the ponds.

(2) The Owner shall record, in a log book, the day measurement of sediment was undertaken, the amount of sediment measured, if sediment removal was undertaken and where any removed sediment

was disposed.

(3) The log book shall be retained at the site and be made available for Ministry inspection upon request.

7. MONITORING AND RECORDING

The Owner shall, upon the issuance of the Approval, carry out the following monitoring program:

(1) 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) For the purposes of this condition, the following definitions apply:

- a. Monthly means once every month;
- b. Quarterly means once every three months.

(3) Samples shall be collected at the following sampling points, at the frequency specified, by means of the specified sample type and analyzed for each parameter listed and all results recorded.

Table 2 - Effluent Monitoring	
Sampling Locations	1. at the end of the North Discharge pipe 2. at the end of the South Discharge pipe
Sampling Frequency	Monthly and Quarterly during Operation (see below)
Sample Type	Grab
Parameters	<p><u>Monthly Monitoring Parameters</u></p> <p>pH (field), Temperature (field), Dissolved Oxygen (field), Conductivity (field), Total Suspended Solids, Total Dissolved Solids, Alkalinity, Hardness, Total Ammonia, calculated Unionized Ammonia, Oil and Grease</p> <p><u>Quarterly Monitoring Parameters</u></p> <p>Chloride, Sulphate, Total Kjeldahl Nitrogen, Dissolved Organic Carbon, Total Phosphorus, Nitrate, Nitrite, Phenols, PAHs, Metals (Total Aluminum, Antimony, Arsenic, Barium, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Selenium, Silver and Zinc)</p>

(4) The Owner shall conduct **quarterly field temperature monitoring** (four times per year representing seasonal changes) at the following locations identified in the submitted documents of this application:

- a. SW1: Outlet of the North Discharge;

- b. SW14: second tributary upstream of the quarry discharge;
- c. SW7: downstream of the SW1 tributary's confluence with a second tributary;
- d. SW2: tributary of Bronte Creek downstream of the Britannia Rd crossing;

(5) The methods and protocols for sampling, analysis, 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" (August 1994), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions;

(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; and,

(c) in respect of any parameters not mentioned in (a) or (b), the written approval of the District Manager, which approval shall be obtained prior to sampling.

(6) The temperature and pH of the effluent from the works shall be determined in the field at the time of sampling for total ammonia. The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended, for ammonia (un-ionized).

(7) The Owner shall conduct flow monitoring for the North Discharge and South Discharge during operation.

(8) The measurement frequencies and parameters specified in subsection (3) are minimum requirements which may, after two (2) years of monitoring in accordance with this Condition, be modified by the Director in writing from time to time.

(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 monitoring activities required by this Approval.

8. SPILL CONTINGENCY AND POLLUTION PREVENTION PLAN

(1) Before the commencement of operation of the Works, the Owner shall prepare a Spill Contingency and Pollution Prevention Plan that outlines procedures as to how to mitigate the impacts of a spill within the drainage areas serviced by the Works and prevent pollution incidents, and provide a copy to the District Manager. The said plan shall include as a minimum, but not limited to:

(a) the name, job title and 24-hour telephone number of the person(s) responsible for activating the Spill Contingency and Pollution Prevention Plan;

(b) a site plan drawn to scale showing the types of business, streets, catch basins and/or manholes

and/or ditches and/or drainage channels , drainage patterns (including direction(s) of flow in storm sewers) and any features which need to be taken into account in terms of potential impacts on access and response (including physical obstructions and location of response and clean-up equipment);

(c) steps to be taken to report, contain, clean up and dispose of contaminants following a spill;

(d) a listing of telephone numbers for: local clean-up companies who may be called upon to assist in responding to spills; local emergency responders including health institution(s); and Ministry of the Environment and Climate Change (MOECC) Spills Action Centre 1-800-268-6060;

(e) Materials Safety Data Sheets (MSDS) for each and every hazardous material which may be transported or stored within the area serviced by the Works;

(f) a description of the spill response and pollution prevention training provided to employees assigned to work in the area serviced by the Works, the date(s) on which the training was provided and to whom;

(g) an inventory of response and clean-up equipment available to implement the Spill Contingency and Pollution Prevention Plan, location and date of maintenance/replacement if warranted, including testing and calibration of the equipment; and

(h) the date on which the Spill Contingency and Pollution Prevention Plan was prepared and subsequently, amended.

(2) The Spill Contingency and Pollution Prevention Plan shall be kept in a conspicuous place near the reception area on site.

(3) The Spill Contingency and Pollution Prevention Plan will be amended from time to time as needed by changes in the operation of the facility or to reflect updates in the Municipal By-Laws, or improved Best Management Practices by the Owner.

9. REPORTING

(1) The Owner shall report to the District Manager or designate, any exceedance of any parameter specified in Condition 4 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedance.

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

(3) In addition to the obligations under Part X of the *Environmental Protection Act* , the Owner shall, within ten (10) working days of the occurrence of any reportable spill as defined in Ontario Regulation 675/98, bypass or loss of any product, by-product, intermediate product, oil, solvent, waste material or any other polluting substance into the environment, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill or loss, clean-up and recovery measures

taken, preventative measures to be taken and schedule of implementation.

(4) The Owner shall prepare and submit a performance report to the District Manager on an annual basis within 60 days following the end of the period being reported upon. The first such report shall cover the first annual period following the commencement of operation of the works and subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:

- (a) a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 4, 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 inspection, maintenance and clean-out carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;
- (d) a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- (e) a summary of the calibration and maintenance carried out on all effluent monitoring equipment;
- (f) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- (g) a summary of all spill or abnormal discharge events; and,
- (h) a summary of any Notifications and Contingency Plan undertaken during the reporting period and a discussion regarding their adequacy.

Schedule "A"

1. Application for Approval of Industrial Sewage Works, dated March 10, 2016, submitted by Daniel Twigger, C.C. Tatham & Associates Ltd.;
2. Environmental Compliance Application Report dated March 10, 2016, prepared by C.C. Tatham & Associates Ltd.;
3. Supplemental Information memo dated April 21, 2017, prepared by Dan Hurley from C.C. Tatham & Associates Ltd.;
4. All additional supporting information submitted by Daniel Twigger and Dan Hurley from C.C. Tatham & Associates Ltd. from July 2016 to June, 2017.

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.
2. Condition 2 is included to ensure that the Ministry records are kept accurate and current with respect to 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.
3. Condition 3 is included to ensure that a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the owner and made available to the Ministry. Such a manual is an integral part of the operation of the works. Its compilation and use should assist the owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the owner's operation of the work.
4. Conditions 4 and 5 are imposed to ensure that the effluent discharged from the Works to the environment meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver and to protect water quality, fish and other aquatic life in the receiving water body.
5. Condition 6 is included to require that the Works be properly operated and maintained such that the environment is protected.
6. Condition 7 is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives specified in the Approval and that the Works do not cause any impairment to the receiving watercourse.
7. Condition 8 is included to ensure that the Ministry is immediately informed of the occurrence of an emergency or otherwise abnormal situation so that appropriate steps are taken to address the immediate concerns regarding the protection of public health and minimizing environmental damage and to be able to devise an overall abatement strategy to prevent long term degradation and the re-occurrence of the situation.
8. Condition 9 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.

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, S.O. 1993, c. 28 (Environmental Bill of Rights), the Environmental Commissioner, within 15

days after receipt of this Notice, require a hearing by the Tribunal. The Environmental Commissioner 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.

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 Environmental Commissioner
1075 Bay Street, Suite 605
Toronto, Ontario
M5S 2B1

AND

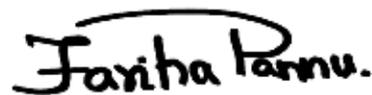
The Director appointed for the purposes of
Part II.1 of the Environmental Protection Act
Ministry of the Environment and
Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** 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 www.ebr.gov.on.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 29th day of June, 2017



Fariha Pannu, P.Eng.

Director

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

YZ/

c: District Manager, MOECC Halton-Peel District Office
Daniel Twigger, C.C. Tatham & Associates Ltd.