

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 0073-BHGQHC
Issue Date: October 31, 2019

Lehigh Hanson Materials Limited/Matériaux Lehigh Hanson Limitee
1370 Hwy 49
Post Office Box, No. 620
Prince Edward, Ontario
K0K 2T0

Site Location: 1370 Highway 49
1370 Highway 49 Picton
Prince Edward County,
K0K 2T0

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:

Description Section

A cement clinker and cement manufacturing facility using dry process kilns, fired by natural gas/coal/pet coke, consisting of the following processes and support units:

- limestone quarry operations; including limestone crushing, storage and transfers;
- raw materials receiving, storage, transfer and milling operations;
- one (1) dry process preheater type kiln (Kiln 4) and one (1) long dry process type kiln (Kiln 3); including clinker coolers, clinker transfers and storage;
- clinker cement production; including cement mills, cement storage and shipping; and
- slag production; including mills, storage and shipping;

including the *Equipment* and any other ancillary and support processes and activities, operating at a *Facility Production Limit* of up to **163 tonnes per hour of cement clinker produced by Kiln 4 and up to 46 tonnes per hour of cement clinker produced by Kiln 3**, discharging to the air as described in the *Original ESDM Report*.

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

1. "*ACB list*" means the document entitled "Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants", as amended from time to time and published by the *Ministry* and available on a Government website;
2. "*Acceptable Point of Impingement Concentration*" means a concentration accepted by the *Ministry* as not likely to cause an adverse effect for a *Compound of Concern* that,
 - a. is not identified in the *ACB list*, or
 - b. is identified in the *ACB list* as belonging to the category "Benchmark 2" and has a concentration at a *Point of Impingement* that exceeds the concentration set out for the contaminant in that document.

With respect to the *Original ESDM Report*, the *Acceptable Point of Impingement Concentration* for a *Compound of Concern* mentioned above is the concentration set out in the *Original ESDM Report*;

3. "*Acoustical Consultant*" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with *Ministry* noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a *Facility* ;
4. "*Acoustic Assessment Report*" means the report, prepared in accordance with *Publication NPC-233* and Appendix A of the *Basic Comprehensive User Guide*, by Golder Associates Ltd. and dated June 18, 2019 submitted in support of the application, that documents all sources of noise emissions and *Noise Control Measures* present at the *Facility*, as updated in accordance with Condition 5 of this *Approval*;
5. "*Acoustic Assessment Summary Table*" means a table prepared in accordance with the *Basic Comprehensive User Guide* summarising the results of the *Acoustic Assessment Report*, as updated in accordance with Condition 5 of this *Approval*;
6. "*Acoustic Audit*" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the *Facility* , assessed to determine compliance with the performance limits for the *Facility* regarding noise emissions, completed in accordance with the procedures set in *Publication NPC-103* and reported in accordance with *Publication NPC-233* ;
7. "*Acoustic Audit Report*" means a report presenting the results of an *Acoustic Audit* , prepared in accordance with *Publication NPC-233* ;
8. "*Approval*" means this entire Environmental Compliance Approval and any *Schedules* to it;

9. "*Basic Comprehensive User Guide*" means the *Ministry* document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended;
10. "BMPP" means "Lehigh Cement Picton. Fugitive Dust -Best Management Practices Plan (BMPP)" version 1.2 dated April 2018.
11. "*Company*" means Lehigh Hanson Materials Limited/Materiaux Lehigh Hanson Limitee operating as Lehigh Hanson Materials Limited/Materiaux Lehigh Hanson Limitee that is responsible for the construction or operation of the *Facility* and includes any successors and assigns in accordance with section 19 of the *EPA*;
12. "*Compound of Concern*" means a contaminant described in paragraph 4 subsection 26 (1) of *O. Reg. 419/05*, namely, a contaminant that is discharged from the *Facility* in an amount that is not negligible;
13. "*Description Section*" means the section on page one of this *Approval* describing the *Company's* operations and the *Equipment* located at the *Facility* and specifying the *Facility Production Limit* for the *Facility*;
14. "*Director*" means a person appointed for the purpose of section 20.3 of the *EPA* by the *Minister* pursuant to section 5 of the *EPA*;
15. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located;
16. "*Emission Summary Table*" means a table described in paragraph 14 of subsection 26 (1) of *O. Reg. 419/05*;
17. "*Environmental Assessment Act*" means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended;
18. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
19. "*Equipment*" means equipment or processes described in the *ESDM Report*, this *Approval* and in the *Schedules* referred to herein and any other equipment or processes;
20. "*Equipment with Specific Operational Limits*" means any *Equipment* related to the thermal oxidation of waste or waste derived fuels, fume incinerators or any other *Equipment* that is specifically referenced in any published *Ministry* document that outlines specific operational guidance that must be considered by the *Director* in issuing an *Approval*;
21. "*ESDM Report*" means the most current Emission Summary and Dispersion Modelling Report that describes the *Facility*. The *ESDM Report* is based on the *Original ESDM Report* and is updated after the issuance of this *Approval* in accordance with section 26 of *O. Reg. 419/05* and the

Procedure Document;

22. "*Facility*" means the entire operation located on the property where the *Equipment* is located;
23. "*Facility Production Limit*" means the production limit placed by the *Director* on the main product(s) or raw materials used by the *Facility*;
24. "*Independent Acoustical Consultant*" means an *Acoustical Consultant* who is not representing the *Company* and was not involved in preparing the *Acoustic Assessment Report* or the design/implementation of *Noise Control Measures* for the *Facility* and/or *Equipment*. The *Independent Acoustical Consultant* shall not be retained by the *Acoustical Consultant* involved in the noise impact assessment or the design/implementation of *Noise Control Measures* for the *Facility* and/or *Equipment*
25. "*Log*" means a document that contains a record of each change that is required to be made to the *ESDM Report* and *Acoustic Assessment Report*, including the date on which the change occurred. For example, a record would have to be made of a more accurate emission rate for a source of contaminant, more accurate meteorological data, a more accurate value of a parameter that is related to a source of contaminant, a change to a *Point of Impingement* and all changes to information associated with a *Modification* to the *Facility* that satisfies Condition 2;
26. "*Manager*" means the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, or any other person who represents and carries out the duties of the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, as those duties relate to the conditions of this *Approval*;
27. "*Minister*" means the Minister of the Environment, Conservation and Parks or such other member of the Executive Council as may be assigned the administration of the *EPA* under the Executive Council Act;
28. "*Ministry*" means the ministry of the *Minister*;
29. "*Modification*" means any construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing, or alteration of a process or rate of production at the *Facility* that may discharge or alter the rate or manner of discharge of a *Compound of Concern* to the air or discharge or alter noise or vibration emissions from the *Facility*;
30. "*Noise Abatement Action Plan*" means the noise abatement program developed by the *Company*, submitted to the *Director* and *District Manager* and approved by the *Director*, designed to achieve compliance with the sound level limits set in Ministry Publication NPC-300, as applicable. It also means the Noise Abatement Action Plan from the Acoustic Assessment Report dated June 18, 2019, prepared by Paul Niejadlik of Golder Associates Ltd.;
31. "*Noise Control Measures*" means measures to reduce the noise emissions from the *Facility* and/or *Equipment* including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment,

plenums and barriers, described in the *Company* 's application, and in the supporting documentation referred to herein, including the *Acoustic Assessment Report* , to the extent approved by this *Approval*;

32. "*O. Reg. 419/05*" means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended;
33. "*Original ESDM Report*" means the Emission Summary and Dispersion Modelling Report which was prepared in accordance with section 26 of *O. Reg. 419/05* and the *Procedure Document* by Camille Taylor (Golder Associates Ltd.) and dated February 21, 2018 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this *Approval*;
34. "*Point of Impingement*" has the same meaning as in section 2 of *O. Reg. 419/05*;
35. "*Pre-Test Plan*" means a plan for the *Source Testing* including the information required in Section 5 of the *Source Testing Code*;
36. "*Point of Reception*" means Point of Reception as defined by *Publication NPC-300*;
37. "*Procedure Document*" means *Ministry* guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated February 2017, as amended;
38. "*Processes with Significant Environmental Aspects*" means the *Equipment* which, during regular operation, would discharge one or more contaminants into the air in an amount which is not considered as negligible in accordance with section 26 (1) 4 of *O. Reg. 419/05* and the *Procedure Document*;
39. "*Publication NPC-103*" means the *Ministry* Publication NPC-103 of the Model Municipal Noise Control By-Law, Final Report, August 1978, published by the *Ministry* as amended;
40. "*Publication NPC-207*" means the *Ministry* draft technical publication "Impulse Vibration in Residential Buildings", November 1983, supplementing the Model Municipal Noise Control By-Law, Final Report, published by the *Ministry*, August 1978, as amended;
41. "*Publication NPC-233*" means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
42. "*Publication NPC-300*" means the *Ministry* Publication NPC-300, "Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, Publication NPC-300", August 2013, as amended;
43. "*Schedules*" means the following schedules attached to this *Approval* and forming part of this *Approval* namely:
 - Schedule A - Supporting Documentation
 - Schedule B - Source Testing Procedures;

- Schedule C - Targeted Sources and Test Contaminants List (Kiln 3);
- Schedule D - Targeted Sources and Test Contaminants List (Kiln 4);
- Schedule E - Test Contaminants

44. "*Source Testing*" means sampling and testing to measure emissions resulting from operating the *Targeted Sources* under conditions which yield the worst case emissions within the approved operating range of the *Targeted Sources* which satisfies paragraph 1 of subsection 11(1) of O. Reg. 419/0;
45. "*Source Testing Code*" means the Ontario Source Testing Code, dated June 2010, prepared by the *Ministry*, as amended;
46. "*Targeted Sources*" means the sources listed in Schedule "C and D";
47. "*Test Contaminants*" means the contaminants listed in Schedule "E";
48. "*Toxicologist*" means a qualified professional currently active in the field of risk assessment and toxicology that has a combination of formal university education, training and experience necessary to assess contaminants; and
49. "*Written Summary Form*" means the electronic questionnaire form, available on the *Ministry* website, and supporting documentation, that documents the activities undertaken at the *Facility* in the previous calendar year.

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

1. Except as otherwise provided by this *Approval*, the *Facility* shall be designed, developed, built, operated and maintained in accordance with the terms and conditions of this *Approval* and in accordance with the following *Schedules* attached hereto:
 - Schedule A - Supporting Documentation
 - Schedule B - Source Testing Procedures;
 - Schedule C - Targeted Sources and Test Contaminants Lists (Kiln 3);
 - Schedule D - Targeted Sources and Test Contaminants Lists (Kiln 4);
 - Schedule E - Test Contaminants.

2. LIMITED OPERATIONAL FLEXIBILITY

1. Pursuant to section 20.6 (1) of the *EPA* and subject to Conditions 2.2 and 2.3 of this *Approval*,

future construction, alterations, extensions or replacements are approved in this *Approval* if the future construction, alterations, extensions or replacements are *Modifications* to the *Facility* that:

- a. are within the scope of the operations of the *Facility* as described in the *Description Section* of this *Approval*;
 - b. do not result in an increase of the *Facility Production Limit* above the level specified in the *Description Section* of this *Approval*; and
 - c. result in compliance with the performance limits as specified in Condition 4.
2. Condition 2.1 does not apply to,
- a. the addition of any new *Equipment with Specific Operational Limits* or to the *Modification* of any existing *Equipment with Specific Operational Limits* at the *Facility*; or
 - b. *Modifications* to the *Facility* that would be subject to the *Environmental Assessment Act*.
3. Condition 2.1 of this *Approval* shall expire on July 1, 2023, unless this *Approval* is revoked prior to the expiry date. The *Company* may apply for renewal of Condition 2.1 of this *Approval* by including an *ESDM Report* and an *Acoustic Assessment Report* that describes the *Facility* as of the date of the renewal application.

3. REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION

1. Prior to making a *Modification* to the *Facility* that satisfies Condition 2.1.a. and 2.1.b., the *Company* shall prepare a proposed update to the *ESDM Report* to reflect the proposed *Modification*.
2. The *Company* shall request approval of an *Acceptable Point of Impingement Concentration* for a *Compound of Concern* if the *Compound of Concern* is not identified in the *ACB list* as belonging to the category “Benchmark 1” and a proposed update to an *ESDM Report* indicates that one of the following changes with respect to the concentration of the *Compound of Concern* may occur:
 - a. The *Compound of Concern* was not a *Compound of Concern* in the previous version of the *ESDM Report* and
 - i. the concentration of the *Compound of Concern* exceeds the concentration set out for the contaminant in the *ACB list*; or
 - ii. the *Compound of Concern* is not identified in the *ACB list*; or
 - b. The concentration of the *Compound of Concern* in the updated *ESDM Report* exceeds the higher of,
 - i. the most recent *Acceptable Point of Impingement Concentration*, and
 - ii. the concentration set out for the contaminant in the *ACB list*, if the contaminant is identified in that document.
3. The request required by Condition 3.2 shall propose a concentration for the *Compound of*

Concern and shall contain an assessment, performed by a *Toxicologist*, of the likelihood of the proposed concentration causing an adverse effect at *Points of Impingement*.

4. If the request required by Condition 3.2 is a result of a proposed *Modification* described in Condition 3.1, the *Company* shall submit the request, in writing, to the *Director* at least 30 days prior to commencing to make the *Modification*. The *Director* shall provide written confirmation of receipt of this request to the *Company*.
5. If a request is required to be made under Condition 3.2 in respect of a proposed *Modification* described in Condition 3.1, the *Company* shall not make the *Modification* mentioned in Condition 3.1 unless the request is approved in writing by the *Director*.
6. If the *Director* notifies the *Company* in writing that the *Director* does not approve the request, the *Company* shall,
 - a. revise and resubmit the request; or
 - b. notify the *Director* that it will not be making the *Modification*.
7. The re-submission mentioned in Condition 3.6 shall be deemed a new submission under Condition 3.2.
8. If the *Director* approves the request, the *Company* shall update the *ESDM Report* to reflect the *Modification*.
9. Condition 3 does not apply if Condition 2.1 has expired.

4. PERFORMANCE LIMITS

1. Subject to Condition 4.2, the *Company* shall not discharge or cause or permit the discharge of a *Compound of Concern* into the air if,
 - a. the *Compound of Concern* is identified in the *ACB list* as belonging to the category "Benchmark 1" and the discharge results in the concentration at a *Point of Impingement* exceeding the Benchmark 1 concentration; or
 - b. the *Compound of Concern* is not identified in the *ACB list* as belonging to the category "Benchmark 1" and the discharge results in the concentration at a *Point of Impingement* exceeding the higher of,
 - i. if an *Acceptable Point of Impingement Concentration* exists, the most recent *Acceptable Point of Impingement Concentration*, and
 - ii. the concentration set out for the contaminant in the *ACB list*, if the contaminant is identified in that document.
2. Condition 4.1 does not apply if the benchmark set out in the *ACB list* has a 10-minute averaging period and no ambient monitor indicates an exceedance at a *Point of Impingement* where human activities regularly occur at a time when those activities regularly occur.
3. The *Company* shall ensure, subsequent to the completion of the *Noise Abatement Action Plan*, that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication*

NPC-300.

4. The *Company* shall ensure that the vibration emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-207*.
5. The *Company* shall operate any *Equipment with Specific Operational Limits* approved by this *Approval* in accordance with the *Original ESDM Report*.
6. The *Company* shall at all times comply with the Condition 4.6.a (described below), unless a modification assessment(s) is completed and demonstrate compliance with the Conditions 4.1 and 4.2 of this *Approval*;
 - a. hourly production limits;
 - i. up to 390 tonnes per hour of primary and up to 370 tonnes per hour of secondary crushing of limestone;
 - ii. up to 1,083 tonnes per hour of coal unloading operations;
 - iii. up to 2,600 tonnes per hour of coke unloading operations;
 - iv. up to 2,800 tonnes per hour of anhydride gypsum/crude gypsum unloading operations;
 - v. up to 65 tonnes per hour of anhydride gypsum/crude gypsum out-loading operations;
 - vi. up to 80 tonnes per hour of silica, iron and alumina drops to storage piles;
 - vii. up to 200 tonnes per hour of additives drop to storage;
 - viii. up to 3 tonnes per hour of clinker kiln dust drop to storage pile; and
 - ix. up to 17 tonnes per hour of clinker kiln dust out-loading operations;
7. The *Company* shall immediately implement *BMPP*. The *Company* shall update the *BMPP* as necessary or at the direction of the *District Manager*.

5. DOCUMENTATION REQUIREMENTS

1. The *Company* shall maintain an up-to-date *Log*.
2. No later than June 30 in each year, the *Company* shall update the *Acoustic Assessment Report* and shall update the *ESDM Report* in accordance with section 26 of *O. Reg. 419/05* so that the information in the reports is accurate as of December 31 in the previous year.
3. The *Company* shall make the *Emission Summary Table* (see section 27 of *O. Reg. 419/05*) and *Acoustic Assessment Summary Table* available for examination by any person, without charge, by posting it on the Internet or by making it available during regular business hours at the *Facility*.
4. The *Company* shall, within three (3) months after the expiry of Condition 2.1 of this *Approval*, update the *ESDM Report* and the *Acoustic Assessment Report* such that the information in the reports is accurate as of the date that Condition 2.1 of this *Approval* expired.
5. Conditions 5.1 and 5.2 do not apply if Condition 2.1 has expired.

6. REPORTING REQUIREMENTS

1. Subject to Condition 6.2, the *Company* shall provide the *Director* no later than August 31 of each year, a *Written Summary Form* to be submitted through the *Ministry's* website that shall include the following:
 - a. a declaration of whether the *Facility* was in compliance with section 9 of the *EPA, O. Reg. 419/05* and the conditions of this *Approval*;
 - b. a summary of each *Modification* satisfying Condition 2.1.a. and 2.1.b. that took place in the previous calendar year that resulted in a change in the previously calculated concentration at a *Point of Impingement* for any *Compound of Concern* or resulted in a change in the sound levels reported in the *Acoustic Assessment Summary Table* at any *Point of Reception*.
2. Condition 6.1 does not apply if Condition 2.1 has expired.

7. OPERATION AND MAINTENANCE

1. The *Company* shall prepare and implement, not later than three (3) months from the date of this *Approval*, operating procedures and maintenance programs for all *Processes with Significant Environmental Aspects*, which shall specify as a minimum:
 - a. frequency of inspections and scheduled preventative maintenance;
 - b. procedures to prevent upset conditions;
 - c. procedures to minimize all fugitive emissions;
 - d. procedures to prevent and/or minimize odorous emissions;
 - e. procedures to prevent and/or minimize noise emissions; and
 - f. procedures for record keeping activities relating to the operation and maintenance programs.
2. The *Company* shall ensure that all *Processes with Significant Environmental Aspects* are operated and maintained in accordance with this *Approval*, the operating procedures and maintenance programs.
3. The *Company* shall verify (on daily bases) working parameters of the large baghouses (sources ID: 4-1; 4-3; 4-4; 4-5; 5-1; 5-2; 5-3; 5-4; 5-5; 5-6; 5-31 and 5-49) and the electrostatic precipitators (source ID: 4-2, including ESP4, ESP5, ESP6 and ESP9); as described in the emails from Nick Papanicolaou, BSc. Environmental Manager, Lehigh Cement dated October 11, 2019 and October 25, 2019; to ensure that large baghouses and ESP's operate within recommended range of working parameters.

8. COMPLAINTS RECORDING AND REPORTING

1. If at any time, the *Company* receives an environmental complaint from the public regarding the operation of the *Equipment* approved by this *Approval*, the *Company* shall take the following steps:
 - a. Record and number each complaint, either electronically or in a log book. The record shall

include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and, if known, the address of the complainant.

- b. Notify the *District Manager* of the complaint within two (2) business days after the complaint is received, or in a manner acceptable to the *District Manager*.
- c. Initiate appropriate steps to determine all possible causes of the complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.
- d. Complete and retain on-site a report written within one (1) week of the complaint date (or as District Manager discretion). The report shall list the actions taken to appropriately deal with the cause of the complaint and set out steps to be taken to avoid the recurrence of similar incidents.

9. RECORD KEEPING REQUIREMENTS

1. Any information requested by any employee in or agent of the *Ministry* concerning the *Facility* and its operation under this *Approval*, including, but not limited to, any records required to be kept by this *Approval*, shall be provided to the employee in or agent of the *Ministry*, upon request, in a timely manner.
2. Unless otherwise specified in this *Approval*, the *Company* shall retain, for a minimum of five (5) years from the date of their creation all reports, records and information described in this *Approval*, including,
 - a. a copy of the *Original ESDM Report* and each updated version;
 - b. a copy of each version of the *Acoustic Assessment Report*;
 - c. supporting information used in the emission rate calculations performed in the *ESDM Reports* and *Acoustic Assessment Reports*;
 - d. the records in the *Log*;
 - e. copies of each *Written Summary Form* provided to the *Ministry* under Condition 6.1 of this *Approval*;
 - f. records of maintenance, repair and inspection of *Equipment* related to all *Processes with Significant Environmental Aspects*; and
 - g. all records related to environmental complaints made by the public as required by Condition 8 of this *Approval*.

10. REVOCATION OF PREVIOUS APPROVALS

1. This *Approval* replaces and revokes all Certificates of Approval (Air) issued under section 9 *EPA* and Environmental Compliance Approvals issued under Part II.1 *EPA* to the *Facility* in regards to the activities mentioned in subsection 9(1) of the *EPA* and dated prior to the date of this *Approval*.

11. CONTINUOUS MONITORING SYSTEMS

1. The *Company* shall submit, to the *Manager*, not later than sixty (60) days after the date of that approval a *Continuous Monitoring Plan* for the *Continuous Monitoring Systems* that will continuously monitor the following parameters in the exhaust gas stream;
 - a. nitrogen oxides (NO_x) concentrations;
 - b. sulphur dioxides (SO₂) concentrations;
 - c. volumetric flow rate;
 - d. temperature;and
 - e. opacity
2. The *Continuous Monitoring Systems* shall monitor the following stacks exhausts;
 - a. Kiln 3 Stack exhaust equipped with a baghouse;
 - b. Kiln 4 Stack exhaust equipped with an ESP; and
 - c. Kiln 4 Bypass Stack equipped with a baghouse.
3. The *Continuous Monitoring Plan* shall include descriptions of, but not be limited to:
 - a. Source and air pollutants / parameters requiring continuous monitoring and associated targets / in-stack limits (when applicable),
 - b. Sample probe and gas calibration port location(s) and associated flue gas conditions,
 - c. Sample extraction, transport and conditioning system,
 - d. Analyzer performance specifications,
 - e. Relative accuracy and reference method for test audit,
 - f. Performance indicators and monitoring frequency,
 - g. Communication protocol(s) and corrective action(s) regarding malfunctions,
 - h. Preventative maintenance and spare parts,
 - i. Service contractor and staff responsibilities including training,
 - j. Other operating and maintenance procedures to ensure availability,
 - k. Data acquisition system, and
 - l. Data verification procedures.
4. The *Company* shall finalize the *Continuous Monitoring Plan* in consultation with the *Manager* .
5. The *Company* shall;
 - a. Kiln 4 system (Kiln 4 stack equipped with ESP and Kiln 4 bypass stack equipped with a

baghouse) ;

- i. operate and maintain the existing continuous monitoring systems for Kiln 4 system;
 - ii. not later than six (6) months after the *Manager* has approved the *Continuous Monitoring Plan* updated and implement all recommendations (if required) of the *Continuous Monitoring Plan* for Kiln 4
 - iii. A current copy of the *Continuous Monitoring Plan* shall be kept at an accessible location for easy access by persons responsible for supervising, operating and maintaining the *Continuous Monitoring System* and associated data as well as by a *Ministry* representative, upon request;
- b. Kiln 3 system (Kiln 3 stack equipped with a baghouse);
- i. install/update the *Continuous Monitoring Systems* after the *Manager* has approved the *Continuous Monitoring Plan*;
 - ii. operate and maintain the *Continuous Monitoring System* before Kiln 3 commissioning and start-up;
 - iii. a current copy of the *Continuous Monitoring Plan* shall be kept at an accessible location for easy access by persons responsible for supervising, operating and maintaining the *Continuous Monitoring System* and associated data as well as by a *Ministry* representative, upon request;

12. SOURCE TESTING

1. The *Company* shall perform *Source Testing* in accordance with the procedures in Schedule "B" to determine the rates of emissions of the *Test Contaminants* from the *Targeted Sources*.

13. NOISE ABATEMENT ACTION PLAN

1. The *Company* shall:
 - a. fully implement the *Noise Abatement Action Plan* specified in the *Acoustic Assessment Report*;
 - b. ensure that the *Noise Control Measures* are properly maintained and continue to provide the acoustical performance outlined in the *Acoustic Assessment Report*.

14. ACOUSTIC AUDIT

1. The *Company* shall carry out acoustic audit measurements on the actual noise emissions due to the operation of the *Facility* . The *Company* :
 - a. shall carry out acoustic audit measurements in accordance with the procedures in *Publication NPC-103*;
 - b. shall submit an *Acoustic Audit Report* on the results of the *Acoustic Audit*, prepared by an *Independent Acoustical Consultant*, in accordance with the requirements of *Publication NPC-233*, to the *District Manager* and the *Director* not later than six (6) months after the

full implementation of the *Noise Abatement Action Plan*.

2. The *Director*:
 - a. may not accept the results of the *Acoustic Audit* if the requirements of *Publication NPC-233* were not followed;
 - b. may require the *Company* to repeat the *Acoustic Audit* if the results of the *Acoustic Audit* are found unacceptable to the *Director*.

SCHEDULE A

Supporting Documentation

1. Environmental Compliance Approval Application, dated February 16, 2018, signed by Nektarios (Nick) Papanicolaou, Environmental Manager and submitted by the *Company*;
2. Emission Summary and Dispersion Modelling Report, prepared by Camille Taylor (Golder Associates Ltd.) and dated February 21, 2018;
3. Acoustic Assessment Report, prepared by Golder Associates Ltd. and dated June 18, 2019;
4. Email from Camille S. Taylor (P.Eng., ing.) (Golder) dated June 15, 2018;
5. Emails from Jamie McEvoy (P.Eng.) (Golder) dated July 19, 2018; August 3, 2018; October 16, 2018; November 15, 2018; December 10, 2018; December 11, 2018; February 21, 2019; April 19, 2019; and May 1, 2019;
6. Emails from Nick Papanicolaou, BSc. Environmental Manager (Lehigh) dated June 14, 2019; July 25, 2019; and October 11, 2019.

SCHEDULE B

Source Testing Procedures

1. The *Company* shall submit;
 - a. not later than six (6) months before Kiln 3 commissioning to the *Manager* a *Pre-Test Plan* for the Kiln 3 and Kiln 4 *Source Testing* required under this *Approval*,
 - b. The *Company* shall finalize the *Pre-Test Plan* in consultation with the *Manager*;
2. The *Company* shall not commence the *Source Testing* required under this *Approval* until the *Manager* has approved the *Pre-Test Plan*,
 - a. The *Company* shall not start-up Kiln 3 operations before the *Manager* approve the *Pre-Test Plan*;
 - b. The shall not start-up Kiln 3 operations before finalizing *Source Testing* of Kiln 4;
 - c. The *Source Testing* on Kiln 4 stack with ESP and Kiln 4 Bypass Stack with baghouse shall be

performed at the same time;

- d. The *Source Testing* on Kiln 3 and Kiln 4 shall be performed at the maximum achievable production rates over 1 hour period or at the production rates not lower than the typical production rates.
3. The *Company* shall complete the *Source Testing* not later than three (3) months after the *Manager* has approved the *Pre-Test Plan* or within a period as directed or agreed to in writing by the *Manager* and the *District Manager*.
4. The *Company* shall notify the *Manager*, the *District Manager* and the *Director* in writing of the location, date and time of any impending *Source Testing* required by this *Approval*, at least fifteen (15) days prior to the *Source Testing*.
5. The *Company* shall submit a report (hard copy and electronic format) on the *Source Testing* to the *Manager*, the *District Manager* and the *Director* not later than three (3) months after completing the *Source Testing*. The report shall be in the format described in the *Source Testing Code*, and shall also include, but not be limited to:
 - a. an executive summary;
 - b. an identification of the applicable North American Industry Classification System code (NAICS) for the *Facility*;
 - c. records of operating conditions at the time of *Source Testing*, including but not limited to the following:
 - i. production data as a percentage of the maximum achievable capacity;
 - ii. Facility and process(s) information, including raw materials usage rates related to the operation of the *Targeted Sources*;
 - iii. description of the emission sources controlled by the *Targeted Sources* at the time of testing;
 - iv. control equipment working parameters, such as volumetric flow rate, temperature, loading rate/etc., as a percentage of maximum achievable capacity;
 - v. results of the *Continuous Monitoring Systems* (as per required by Condition 11), complete with a summary of the data monitored and recorded by *Continuous Monitoring Systems* during *Source Testing* for each contaminant;
 - vi. control equipment operating parameters related to the overall performance, such as a differential pressure/etc., at the time of *Source Testing* and recommended operating parameters range;
 - vii. operational description of the general building ventilation at the time of testing (if applicable);
 - d. results of *Source Testing*, including the emission rate, emission concentration, and relevant emission factor of the *Test Contaminants* from the *Targeted Sources*; and
 - e. a tabular comparison of *Source Testing* results for the *Targeted Sources* and *Test*

Contaminants to original emission estimates described in the *Company's* application and the *ESDM Report*.

6. The *Director* may not accept the results of the *Source Testing* if:
 - a. the *Source Testing Code* or the requirements of the *Manager* were not followed;
 - b. the *Company* did not notify the *Manager*, the *District Manager* and *Director* of the *Source Testing*; or
 - c. the *Company* failed to provide a complete report on the *Source Testing*.
7. If the *Director* does not accept the results of the *Source Testing*, the *Director* may require re-testing. If re-testing is required, the *Pre-Test Plan* strategies need to be revised and submitted to the *Manager* for approval. The actions taken to minimize the possibility of the *Source Testing* results not being accepted by the *Director* must be noted in the revision.
8. If the *Source Testing* results are higher than the emission estimates in the *Company's* *ESDM Report*, the *Company* shall update their *ESDM Report* in accordance with Section 26 of *O. Reg. 419/05* with the results from the *Source Testing* report and make these records available for review by staff of the *Ministry* upon request. The updated Emission Summary Table from the updated *ESDM Report* shall be submitted with the report on the *Source Testing*.

SCHEDULE C

Targeted Sources and Test Contaminants - Kiln 3

<i>Targeted Sources</i> Source ID	<i>Targeted Sources</i> Source Description	<i>Test Contaminants</i> List
4-1	Kiln 3 Stack with Baghouse	1, 2, 3 and 4
4-3	Kiln 3 Stack Cooler with Baghouse	1 and 2
5-1	Kilns Mill Stack (Mill #1 with East and West Baghouses)	1 and 2
5-4	Kilns Mill Stack (Mill # 4 with East and West Baghouses)	1 and 2

SCHEDULE D

Targeted Sources and Test Contaminants Kiln 4

<i>Targeted Sources</i> Source ID	<i>Targeted Sources</i> Source Description	<i>Test Contaminants</i> List Number
4-2	Kiln 4 Stack with EPS	1 and 2
4-4	Kiln 4 Cooler Stack with Baghouse	1 and 2
4-5	Kiln 4 Bypass Stack with Baghouse	1 and 2
5-5	Kilns Mill Stack (Mill #5 with East, West and Airsweep Baghouses)	1 and 2
5-6	Kilns Mill Stack (Mill #6 with East, West and Airsweep Baghouses and Mill #7 with Baghouse)	1 and 2

SCHEDULE E

Test Contaminants

List Number 1

- Total Suspended Particulate Matter (TSPM)

List Number 2

- Calcium Oxide (CAS # 1305-78-8); Chlorine and Inorganic Chlorine Compounds expressed as Hydrogen Chloride (CAS # 7647-01-0); Fluorine and Inorganic Fluorine Compounds expressed as Hydrogen Fluoride (CAS # 7664-39-3); and Iron (CAS # 7439-98-6)

List Number 3

- Benzo(a)pyrene (CAS # 50-32-8) - as a surrogate of total Polycyclic Aromatic Hydrocarbons (PAHs); and Naphthalene (CAS # 91-20-3)

List Number 4

Dioxins, Furans and Dioxin-like PCBs (Polychlorinated Biphenyls)

- 2,3,7,8-Tetrachlorodibenzo-p-dioxin [2,3,7,8-TCDD]
- 1,2,3,7,8-Pentachlorodibenzo-p-dioxin [1,2,3,7,8-PeCDD]
- 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin [1,2,3,4,7,8-HxCDD]

- 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin [1,2,3,6,7,8-HxCDD]
- 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin [1,2,3,7,8,9-HxCDD]
- 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin [1,2,3,4,6,7,8-HpCDD]
- 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin [1,2,3,4,6,7,8,9-OCDD]
- 2,3,7,8-Tetrachlorodibenzofuran [2,3,7,8-TCDF]
- 2,3,4,7,8-Pentachlorodibenzofuran [2,3,4,7,8-PeCDF]
- 1,2,3,7,8-Pentachlorodibenzofuran [1,2,3,7,8-PeCDF]
- 1,2,3,4,7,8-Hexachlorodibenzofuran [1,2,3,4,7,8-HxCDF]
- 1,2,3,6,7,8-Hexachlorodibenzofuran [1,2,3,6,7,8-HxCDF]
- 1,2,3,7,8,9-Hexachlorodibenzofuran [1,2,3,7,8,9-HxCDF]
- 2,3,4,6,7,8-Hexachlorodibenzofuran [2,3,4,6,7,8-HxCDF]
- 1,2,3,4,6,7,8-Heptachlorodibenzofuran [1,2,3,4,6,7,8-HpCDF]
- 1,2,3,4,7,8,9-Heptachlorodibenzofuran [1,2,3,4,7,8,9-HpCDF]
- 1,2,3,4,6,7,8,9-Octachlorodibenzofuran [1,2,3,4,6,7,8,9-OCDF]
- 3,3',4,4'-Tetrachlorobiphenyl [3,3',4,4'-tetraCB (PCB 77)]
- 3,4,4',5- Tetrachlorobiphenyl [3,4,4',5-tetraCB (PCB 81)]
- 3,3',4,4',5- Pentachlorobiphenyl (PCB 126) [3,3',4,4',5-pentaCB (PCB 126)]
- 3,3',4,4',5,5'- Hexachlorobiphenyl [3,3',4,4',5,5'-hexaCB (PCB 169)]
- 2,3,3',4,4'- Pentachlorobiphenyl [2,3,3',4,4'-pentaCB (PCB 105)]
- 2,3,4,4',5- Pentachlorobiphenyl [2,3,4,4',5-pentaCB (PCB 114)]
- 2,3',4,4',5- Pentachlorobiphenyl [2,3',4,4',5-pentaCB (PCB 118)]
- 2',3,4,4',5- Pentachlorobiphenyl [2',3,4,4',5-pentaCB (PCB 123)]
- 2,3,3',4,4',5- Hexachlorobiphenyl [2,3,3',4,4',5-hexaCB (PCB 156)]
- 2,3,3',4,4',5'- Hexachlorobiphenyl [2,3,3',4,4',5'-hexaCB (PCB 157)]
- 2,3',4,4',5,5'- Hexachlorobiphenyl [2,3',4,4',5,5'-hexaCB (PCB 167)]
- 2,3,3',4,4',5,5'- Heptachlorobiphenyl [2,3,3',4,4',5,5'-heptaCB (PCB 189)]

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

1. GENERAL

Condition No. 1 is included to require the *Approval* holder to build, operate and maintain the *Facility* in accordance with the Supporting Documentation in Schedule A considered by the *Director* in issuing this *Approval*.

2. LIMITED OPERATIONAL FLEXIBILITY, REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION AND PERFORMANCE LIMITS

Conditions No. 2, 3 and 4 are included to limit and define the *Modifications* permitted by this *Approval*, and to set out the circumstances in which the *Company* shall request approval of an *Acceptable Point of Impingement Concentration* prior to making *Modifications*. The holder of the *Approval* is approved for operational flexibility for the *Facility* that is consistent with the description of the operations included with the application up to the *Facility Production Limit*. In return for the operational flexibility, the *Approval* places performance based limits that cannot be exceeded under the terms of this *Approval*. *Approval* holders will still have to obtain other relevant approvals

required to operate the *Facility*, including requirements under other environmental legislation such as the *Environmental Assessment Act*.

3. DOCUMENTATION REQUIREMENTS

Condition No. 5 is included to require the *Company* to maintain ongoing documentation that demonstrates compliance with the performance limits as specified in Condition 4 of this *Approval* and allows the *Ministry* to monitor on-going compliance with these performance limits. The *Company* is required to have an up to date *ESDM Report* and *Acoustic Assessment Report* that describe the *Facility* at all times and make the *Emission Summary Table* and *Acoustic Assessment Summary Table* from these reports available to the public on an ongoing basis in order to maintain public communication with regard to the emissions from the *Facility*.

4. REPORTING REQUIREMENTS

Condition No. 6 is included to require the *Company* to provide a yearly *Written Summary Form* to the *Ministry*, to assist the *Ministry* with the review of the site's compliance with the *EPA*, the regulations and this *Approval*.

5. OPERATION AND MAINTENANCE

Condition No. 7 is included to require the *Company* to properly operate and maintain the *Processes with Significant Environmental Aspects* to minimize the impact to the environment from these processes.

6. COMPLAINTS RECORDING AND REPORTING PROCEDURE

Condition No. 8 is included to require the *Company* to respond to any environmental complaints regarding the operation of the *Equipment*, according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.

7. RECORD KEEPING REQUIREMENTS

Condition No. 9 is included to require the *Company* to retain all documentation related to this *Approval* and provide access to employees in or agents of the *Ministry*, upon request, so that the *Ministry* can determine if a more detailed review of compliance with the performance limits as specified in Condition 4 of this *Approval* is necessary.

8. REVOCATION OF PREVIOUS APPROVALS

Condition No. 10 is included to identify that this *Approval* replaces all Section 9 Certificate(s) of Approval and Part II.1 Approvals in regards to the activities mentioned in subsection 9(1) of the *EPA* and dated prior to the date of this *Approval*.

9. CONTINUOUS EMISSION MONITORING SYSTEMS AND SOURCE TESTING

Condition Nos. 11 and 12 are included to require the *Company* to gather accurate information so that compliance with the *EPA*, the regulations and this *Approval* can be verified;

10. NOISE ABATEMENT ACTION PLAN

Condition No. 13 is included to require the *Company* to implement a *Noise Control Measures* designed to ensure that the noise emissions from the *Facility* will be in compliance with applicable

limits set in the *Ministry's* noise guidelines.

11. ACOUSTIC AUDIT

Condition No. 14 is included to require the *Company* to gather accurate information and submit an *Acoustic Audit Report* in accordance with procedures set in the *Ministry's* noise guidelines, so that the environmental impact and subsequent compliance with the *EPA*, the regulation and this *Approval* can be verified.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s).
4344-7XAS8R issued on February 27, 2010.**

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 31st day of October, 2019



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

JK/

- c: Area Manager, MECP Belleville
- c: District Manager, MECP Kingston - District
Camille Taylor, Golder Associates Ltd.