

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 2799-BL2K83

Issue Date: January 24, 2020

Bodycote Thermal Processing Canada, Inc.
9 Shirley Avenue
Kitchener, Ontario
N2B 2E6

Site Location: 9 Shirley Avenue
Kitchener City, Regional Municipality of Waterloo
N2B 2E6

*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:*

- one (1) natural gas fired batch quench furnace, having a maximum heat input of 1,266,000 kilojoules per hour, exhausting:
 - the process emissions into the atmosphere at a maximum volumetric flowrate of 1.23 cubic metres per second through a stack, designated AFC1-1, having an exit diameter of 0.51 metre, extending 1.8 metres above the roof and 9.5 metres above grade; and
 - the products of combustion into the atmosphere through a stack, designated as AFC1-2, at a maximum volumetric flowrate of 0.15 cubic metre per second, having an exit diameter of 0.30 metre, extending 1.5 metres above the roof and 8.2 metres above grade;

- one (1) natural gas fired batch quench furnace, having a maximum heat input of 1,266,000 kilojoules per hour, exhausting:
 - the process emissions into the atmosphere at a maximum volumetric flowrate of 1.23 cubic metres per second through a stack, designated as AFC2-1, having an exit diameter of 0.51 metre, extending 1.8 metres above the roof and 9.5 metres above grade; and
 - the products of combustion into the atmosphere through a stack, designated as AFC2-2, at a maximum volumetric flowrate of 0.15 cubic metre per second, having an exit diameter of 0.30 metre, extending 1.5 metres above the roof and 8.2 metres above grade;

- one (1) natural gas fired batch quench furnace, having a maximum heat input of 1,266,000 kilojoules per hour, exhausting:
 - the process emissions into the atmosphere at a maximum volumetric flow

rate of 1.23 cubic metres per second through a stack, designated as AFC3-1, having an exit diameter of 0.51 metre, extending 1.8 metres above the roof and 9.5 metres above grade; and

- the products of combustion into the atmosphere through a stack, designated as AFC3-2, at a maximum volumetric flowrate of 0.15 cubic metre per second, having an exit diameter of 0.30 metre, extending 1.5 metres above the roof and 8.2 metres above grade;
- one natural gas fired batch quench furnace, having a maximum heat input of 1,266,000 kilojoules per hour, exhausting:
 - the process emissions into the atmosphere at a maximum volumetric flowrate of 1.23 cubic metres per second through a stack, designated as AFC4-1, having an exit diameter of 0.51 metre, extending 1.8 metres above the roof and 9.5 metres above grade; and
 - the products of combustion into the atmosphere through a stack, designated as AFC4-2, at a maximum volumetric flowrate of 0.15 cubic metre per second, having an exit diameter of 0.30 metre, extending 1.5 metres above the roof and 8.2 metres above grade;
- one (1) natural gas fired batch temper furnace, designated as DBX1, having a maximum heat input of 896,750 kilojoules per hour, exhausting into the atmosphere at a maximum volumetric flow rate of 0.23 cubic metre per second through a stack having an exit diameter of 0.38 metre, extending 1.8 metres above the roof and 9.5 metres above grade;
- one (1) natural gas fired batch temper furnace, designated as DBX2, having a maximum heat input of 896,750 kilojoules per hour, exhausting into the atmosphere at a maximum volumetric flow rate of 0.23 cubic metre per second through a stack having an exit diameter of 0.38 metre, extending 1.8 metres above the roof and 9.5 metres above grade;
- one (1) natural gas fired batch temper furnace, designated as DBX3, having a maximum heat input of 896,750 kilojoules per hour, exhausting into the atmosphere at a maximum volumetric flow rate of 0.23 cubic metre per second through a stack having an exit diameter of 0.38 metre, extending 1.8 metres above the roof and 9.2 metres above grade;
- one (1) natural gas fired batch temper furnace, designated as DBX4, having a maximum heat input of 896,750 kilojoules per hour, exhausting into the atmosphere at a maximum volumetric flow rate of 0.23 cubic metre per second through a stack having an exit diameter of 0.38 metre, extending 1.8 metres above the roof and 9.2 metres above grade;
- one (1) natural gas fired batch temper furnace, designated as DBX5, having a

maximum heat input of 896,750 kilojoules per hour, exhausting into the atmosphere at a maximum volumetric flow rate of 0.23 cubic metre per second through a stack having an exit diameter of 0.38 metre, extending 1.8 metres above the roof and 9.2 metres above grade;

- one (1) natural gas fired batch temper furnace, designated as DBX6, having a maximum heat input of 896,750 kilojoules per hour, exhausting into the atmosphere at a maximum volumetric flow rate of 0.23 cubic metre per second through a stack having an exit diameter of 0.38 metre, extending 1.8 metres above the roof and 9.2 metres above grade;
- one (1) natural gas fired batch temper furnace, having a maximum heat input of 1,055,000 kilojoules per hour, exhausting:
 - the process emissions into the atmosphere at a maximum volumetric flow rate of 0.10 cubic metre per second through a stack, designated as DBX7-1, having an exit diameter of 0.25 metre, extending 1.7 metres above the roof and 8.4 metres above grade; and
 - the products of combustion into the atmosphere into the atmosphere at a maximum volumetric flowrate of 0.10 cubic metres per second, through a stack, designated as DBX7-2, having an exit diameter of 0.25 metre, extending 1.8 metres above the roof and 8.5 metres above grade;
- one (1) natural gas fired batch temper furnace, having a maximum heat input of 1,055,000 kilojoules per hour, exhausting:
 - the process emissions into the atmosphere at a maximum volumetric flow rate of 0.10 cubic metre per second through a stack, designated as DBX8-1, having an exit diameter of 0.25 metre, extending 1.7 metres above the roof and 7.8 metres above grade, and
 - the products of combustion into the atmosphere at a maximum volumetric flowrate of 0.10 cubic metre per second through a stack, designated as DBX8-2, having an exit diameter of 0.25 metre, extending 1.8 metres above the roof and 7.9 metres above grade;
- two (2) natural gas fired wash bath heaters, each having a maximum heat input of 422,000 kilojoules per hour, exhausting into the atmosphere through a general exhaust, having an exit diameter of 1.52 metres, extending 2.0 metres above the roof and 10.3 metres above grade;
- one (1) exhaust system serving two (2) natural gas fired endothermic generators, having a total heat input of 1,583,000 kilojoules per hour, exhausting into the atmosphere through a stack, designated as E-GEN, having an exit diameter of 0.15 metre, extending 1.8 metres above the roof and 9.5 metres above grade;
- QA laboratory fumehood exhaust;

- maintenance welding activities;

all in accordance with the Environmental Compliance Approval Application submitted by Bodycote Thermal Processing Canada, Inc., dated September 20, 2019 and signed by Ron Prattis, Production & Maintenance Manager; and the supporting information, including the Emission Summary and Dispersion Modelling Report, submitted by Pinchin Ltd., dated September 20, 2019 and signed by Daniel Barbisan; additional information provided by Daniel Barbisan in emails dated December 19, 2019, January 13, 2020 and January 20, 2020; and the Acoustic Assessment Report prepared by Pinchin Ltd., dated September 20, 2019 and signed by Aidan Maher, P.Eng.

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

1. "*Approval*" means this Environmental Compliance Approval, including the application and supporting documentation listed above;
2. "*Company*" means Bodycote Thermal Processing Canada, Inc., that is responsible for the construction or operation of the *Facility* and includes any successors and assigns;
3. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located;
4. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended ;
5. "*Equipment*" means the equipment and processes described in the *Company's* application, this *Approval* and in the supporting documentation submitted with the application, to the extent approved by this *Approval*;
6. "*Facility*" means the entire operation located on the property where the *Equipment* is located;
7. "*Manual*" means a document or a set of documents that provide written instructions to staff of the *Company*;
8. "*Ministry*" means the ministry of the government of Ontario responsible for the *EPA* and includes all officials, employees or other persons acting on its behalf; and
9. "*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.

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. OPERATION AND MAINTENANCE

1. The *Company* shall ensure that the *Equipment* is properly operated and maintained at all times. The *Company* shall:
 - a. prepare, not later than three (3) months after the date of this *Approval*, and update, as necessary, a *Manual* outlining the operating procedures and a maintenance program for the *Equipment*, including:
 - i. routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the *Equipment* suppliers;
 - ii. emergency procedures;
 - iii. procedures for any record keeping activities relating to operation and maintenance of the *Equipment*; and
 - iv. all appropriate measures to minimize noise and odorous emissions from all potential sources;
 - b. implement the recommendations of the *Manual*.

2. RECORD RETENTION

1. The *Company* shall retain, for a minimum of two (2) years from the date of their creation, all records and information related to or resulting from the recording activities required by this *Approval*, and make these records available for review by staff of the *Ministry* upon request. The *Company* shall retain:
 - a. all records on the maintenance, repair and inspection of the *Equipment*; and
 - b. all records of any environmental complaints, including:
 - i. a description, time and date of each incident to which the complaint relates;
 - ii. wind direction at the time of the incident to which the complaint relates; and
 - iii. a description of the measures taken to address the cause of the incident to which the complaint relates and to prevent a similar occurrence in the future.

3. NOTIFICATION OF COMPLAINTS

1. The *Company* shall notify the *District Manager*, in writing, of each environmental complaint within two (2) business days of the complaint. The notification shall include:
 - a. a description of the nature of the complaint; and
 - b. the time and date of the incident to which the complaint relates.

4. NOISE

1. The *Company* shall, at all times, ensure that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-300*; and
2. The *Company* shall restrict the nitrogen tanker truck off-loading to the daytime hours from 7 a.m. to 7 p.m.

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

1. Condition No. 1 is included to emphasize that the *Equipment* must be maintained and operated according to a procedure that will result in compliance with the *EPA*, the *Regulations* and this *Approval*.
2. Condition No. 2 is included to require the *Company* to keep records and to provide information to staff of the *Ministry* so that compliance with the *EPA*, the *Regulations* and this *Approval* can be verified.
3. Condition No. 3 is included to require the *Company* to notify staff of the *Ministry* so as to assist the *Ministry* with the review of the site's compliance.
4. Condition No. 4.1 is included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the *Facility*.
5. Condition No. 4.2 is included to ensure that nitrogen tanker truck off-loading is not extended beyond the stated hours to prevent an adverse effect resulting from the operation of the *Equipment*.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 3470-6VKK9S issued on November 15, 2006

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 24th day of January,
2020

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

KS/
c: District Manager, MECP Guelph
Daniel Barbisan, Pinchin Ltd.