

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 8038-BD3MQE
Issue Date: June 17, 2019

Toda Advanced Materials Inc.
933 Vidal St S
Post Office Box, No. 938
Sarnia, Ontario
N7T 7K2

Site Location: 933 Vidal Street South
Sarnia City, County of Lambton

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) Packed Bed Scrubber used to recover ammonia from the nickel hydroxide finishing process purge stream and complex salt reaction purge stream, having a diameter of 0.6 metre, a total packing height of 5.0 metres consisting of 3.81 centimetre nutter rings, and having a maximum aqueous scrubbing solution flow rate of 33 litres per minute and a maximum inlet gas flow rate of 0.5 cubic metre per second, exhausting into the air at a maximum volumetric flow rate of 0.5 cubic metre per second, through a stack identified as Stack No. 2, having an exit diameter of 0.2 metre, extending 5.0 metres above the roof and 26.5 metres above grade;
- one (1) nickel hydroxide production process BIOX Feed Tank having a capacity of 2.8 cubic metres, exhausting into the air through a vent identified as Stack No. 3, having an exit diameter of 0.05 metre and extending 4.0 metres above grade;
- one (1) nickel hydroxide production process Wastewater Feed Tank having a capacity of 15.5 cubic metres, exhausting into the air through a vent, identified as Stack No. 4, having an exit diameter of 0.05 metre and extending 12.5 metres above grade;
- one (1) exhaust system serving following laboratory equipment:
 - one (1) nickel hydroxide laboratory fume hood;
 - one (1) Lab ICP Spectrophotometer; and
 - one (1) Lab GSM Furnace.

exhausting into the air through a stack identified as stack No. 5, at a maximum volumetric flow rate of 0.8 metre per second, having an exit diameter of 0.38 metre, extending 1.5 metres above the roof and 23.0 metres above grade;

- one (1) exhaust identified as Exhaust # 6 serving Sulphate Removal Plant (SRP) Dryer and Heater followed by one (1) Cyclone and (one) Wet Scrubber, exhausting into the air at a maximum volumetric flow rate of 0.57 cubic metre per second through a stack having an exit dimensions of 0.22 metre x 0.22 metre, extending 2.2 metres above the roof and 15.3 metres above grade;
- one (1) exhaust identified as Exhaust # 7 serving SRP Silo Airveyor with Filter, exhausting into the air at a maximum volumetric flow rate of 0.19 cubic metre per second through a stack having an exit diameter of 0.18 metre, extending 0.4 metre above the roof and 14.3 metres above grade; and
- one (1) exhaust identified as Exhaust # 8 serving Silo Dehumidifier, exhausting into the air at a maximum volumetric flow rate of 0.05 cubic metre per second, through a stack having an exit diameter of 0.20 metre, extending 2.5 metres above grade;

all in accordance with the Application for *Approval* (Air) submitted by the *Company*, dated May 11, 2018 and signed by Kazuyoshi Murashige, including the Emission Summary and Dispersion Modelling Report, submitted by Pollutech Environmental Limited, dated May 28, 2018 and signed by Thomas Vallarino, and email updates provided by Thomas Vallarino of Pollutech Environmental Limited on September 14, 15, 16 and December 19, 2018; and January 08 and May 02, 2019.

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 **Toda Advanced Materials 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 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, including spill clean-up procedures;
 - iii. procedures for any record keeping activities relating to operation and maintenance of the *Equipment*;
 - iv. all appropriate measures to minimize noise and odorous emissions from all potential sources; and
 - v. the frequency of inspection and replacement of the filter material in the *Equipment*;
 - 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*.

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 is included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the *Facility*.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s).
8551-8USGUH issued on June 26, 2012.**

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 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 17th day of June, 2019



Christina Labarge, P.Eng.
Director

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

BS/

c: District Manager, MECP Sarnia
Thomas Vallarino, Pollutech Environmental Limited