

Ministry of the Environment, Conservation and Parks Ministère de l'Environnement, de la Protection de la nature et des Parcs

# **ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 1105-DJSRF6 Issue Date: August 13, 2025

Cyclic Materials Inc. 650 Cataraqui Woods Dr, No. 108 Kingston, Ontario K7P 2Y4

Site Location: 650 Cataraqui Woods Drive, Unit 108

Kingston City, County of Frontenac

You have applied under section 20.2 of Part II.1 of the <u>Environmental Protection Act</u>, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

A metals recycling and recovery facility consisting of the following processes and equipment:

- one (1) cartridge filter dust collector (Source ID: DC01), serving the hammer mill and screening operations of the Pilot Spoke plant, discharging to the air at volumetric flow rate of 1.42 cubic metre per second, through a stack having exit diameter of 0.41 metre, extending 5.7 meters above the roof and 13.7 meters above grade;
- one (1) cartridge filter dust collector (Source ID: DC02), serving the ball mill area of the Pilot Spoke plant, discharging to the air at volumetric flow rate of 1.42 cubic metre per second, through a stack having exit diameter of 0.41 metre, extending 5.7 metres above the roof and 13.7 metres above grade;
- one (1) Camfil Handte-Vortex 1.8 wet scrubber (Source ID: DC03), equipped with centrifugal separator, using water as a scrubbing media, to control particulate emissions from the crushing, grinding (feed sizing) area of the HUB500 plant, discharging to the air at a volumetric flow rate of 0.47 cubic metre per second, through a stack having exit diameter of 0.15 metre, extending 1.1 metres above the roof and 9.1 metres above grade;
- one (1) venturi wet scrubber (Source ID: SC01A), using magnesium hydroxide as a scrubbing media, to control sulphur dioxide and acidic vapours from the HUB500 plant leaching circuit, including atmospheric leaching (AL), primary iron removal (PIR), oxalate precipitation (OXP) and oxalate drying and calcination (OC) processes, discharging to the air at a volumetric flow rate of 1.09 cubic metres per second, through a stack having exit diameter of 0.3 metre, extending 5 metres above the roof and 13 metres above grade;

- one (1) Camfil Handte-Venturi 3.6 wet scrubber (Source ID: DC04), using water as a scrubbing media, to control particulate emissions from the oxalate drying and calcination (OC) process and the product bagging area of the HUB500 plant, discharging to the venturi wet scrubber (Source ID: SC01A);
- one (1) natural gas fired boiler, having a maximum thermal input of 5,539,044 kilojoules per hour, and one (1) natural gas fired wastewater evaporator equipped with a condenser unit for water recovery, having a maximum thermal input of 527,528 kilojoules per hour, both discharging to the air through a common stack (Source ID: BL01), having a volumetric flow rate of 1.11 cubic metres per second and an exit diameter of 0.3 metre, extending 1 metre above the roof and 9 metres above grade; and
- two (2) research and development laboratory fume hoods (Source IDs: EF01 and EF02), each discharging to the air at a volumetric flow rate of 0.56 cubic metre per second, through a stack having exit diameter of 0.15 metre, extending 1.1 metres above the roof and 9.1 metres above grade;

all in accordance with the Application for an Environmental Compliance Approval, dated April 23, 2025 and signed by Ahmed Ghahreman, and the supporting information, including the Emission Summary and Dispersion Modelling Report, submitted by Cambium Inc., dated April 25, 2025 and signed by Cody Given and Salman Patel, and the additional air related information and clarifications provided in emails dated July 9, July 15 and August 8, 2025 from Cambium Inc., the Acoustic Assessment Report prepared by Cambium Inc., dated June 27, 2025 and signed by Trevor Copeland, and the additional noise related information and clarifications provided in a memo dated June 27, 2025 from Cambium Inc

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

- 1. "Acoustic Assessment Report" means the report, prepared in accordance with Publication NPC-233 and Appendix A of the Basic Comprehensive User Guide, prepared by Trevor Copeland / Cambium Inc and dated June 27, 2025, submitted in support of the application, that documents all sources of noise emissions and Noise Control Measures present at the Facility;
- 2. "Approval" means this Environmental Compliance Approval, including the application and supporting documentation listed above;
- 3. "Best Management Practices Plan" means the document "Industrial Dust Best Management Practices Plan for a Metals Recycling Facility- Kingston, ON", dated July 15, 2025, as amended, which describes the measures to minimize fugitive dust emissions from the Facility and/or Equipment;
- 4. "Commence of Operation" means the date when the material to be recycled is first received at the Facility;
- 5. "Company" means Cyclic Materials Inc., 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;
- 6. "Continuous Monitoring Plan" means a document that describes the Continuous Monitoring System that the Company will use for continuous monitoring;

- 7. "Continuous Monitoring System" means the continuous monitoring equipment, data acquisition system and associated operating, maintenance, verification and auditing procedures described in the Continuous Monitoring Plan;
- 8. "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;
- 9. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;
- 10. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19;
- 11. "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;
- 12. "ESDM Report" means the most current Emission Summary and Dispersion Modelling Report that describes the Facility;
- 13. "Facility" means the entire operation located on the property where the Equipment is located;
- 14. "Manager" means the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch of the Ministry, or any other person who represents and carries out the duties of the Manager, as those duties relate to the conditions of this Approval;
- 15. "Manual" means a document or a set of documents that provide written instructions to staff of the Company;
- 16. "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;
- 17. "Noise Control Measures" means measures to reduce the noise emissions from the Facility and/or Equipment including, but not limited to, silencers, acoustic louvers, enclosures, absorptive treatment, plenums and barriers;
- 18. "O. Reg. 419/05" means Ontario Regulation 419/05: Air Pollution Local Air Quality, made under the EPA;
- 19. "Procedure Document" means Ministry guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2018, as amended;
- 20. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
- 21. "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;

- 22. "Truck(s)" means shipping truck(s) and receiving truck(s); and
- 23. "Waste Approval" means the Environmental Compliance Approval and any Schedules attached to it, including the application and its supporting documentation for activities set out under section 27 of the EPA and carried out at the Facility.

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, before the Commencement of Operation of the Facility, 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, including but not limited to the cartridge filter dust collectors and the wet scrubbers;
    - ii. emergency procedures, including spill clean-up procedures;
    - iii. procedures to monitor and record the material feed composition and the hourly feed rate to the HUB500 plant and Pilot Spoke plant;
    - iv. procedures for any record keeping activities relating to operation and maintenance of the Equipment;
    - v. all appropriate measures to minimize noise and odorous emissions from all potential sources; and
    - vi. the frequency of inspection and replacement of the filter material in the Equipment;
  - b. implement the recommendations of the Manual; and
  - c. maintain a copy of the Manual at the Facility and make it available for review by staff of the Ministry upon request.

- 2. The operating procedures and maintenance program for the magnesium hydroxide venturi wet scrubber system shall at a minimum include the following aspects:
  - a. the operating procedures and preventive maintenance measures;
  - b. overview of the operating parameters necessary for the functioning of the scrubber system with the design sulphur dioxide control efficiency and reliability;
  - c. components and specifications of the continuous monitoring of the operating parameters including data acquisition, retention, communication and reporting systems;
  - d. configured alarm/messaging systems that would be used to assist and alert operators of any malfunctions to enable timely corrective action.
- 3. The Company shall record the hourly and daily feed rate of the material processed in the Pilot Spoke plant and the HUB500 plant.
- 4. All activities related to the unloading, processing, storage and management of material processed on-site shall be conducted indoors at all times.
- 5. The Company shall ensure that the receiving rates and the storage capacity of the material processed at the Facility are in accordance with the Waste Approval.

# 2. FUGITIVE DUST CONTROL

- 1. The Company shall:
  - a. implement, at all times, the most recent version of the Best Management Practices Plan;
  - b. review and evaluate the Best Management Practices Plan on an annual basis;
  - c. record the results of each annual review and update as required the Best Management Practices Plan within two (2) months of the completion of the annual review; and
  - d. maintain the updated Best Management Practices Plan at the Facility and make it available for review by staff of the Ministry upon request.
- 2. The Company shall record, either electronically or in a log book, each time a specific preventative and control measure described in the Best Management Practices Plan is implemented. The Company shall record, as a minimum:
  - a. the date when each emission control measure is implemented, including a description of the control measure;
  - b. the date when each new preventative measure or operating procedure to minimize emissions is implemented, including a description of the preventative measure or operating procedure; and

c. the date, time of commencement, and time of completion of each periodic activity conducted to minimize emissions, including a description of the preventative measure/procedure and the name of the individual performing the periodic activity.

## 3. CONTINUOUS MONITORING

- 1. The Company shall submit to the Manager, not later than sixty (60) days before the Commencement of Operation of the Facility, a Continuous Monitoring Plan for the Continuous Monitoring System to continuously monitor and record the volumetric flow rate and the sulphur dioxide concentration in the undiluted gases emitted from Source ID: SC01A: Magnesium hydroxide venturi wet scrubber.
- 2. The Continuous Monitoring Plan shall include a description of, but not limited to:
  - a. parameters requiring continuous monitoring and measurement range;
  - 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. QA/QC procedures and relevant operating and maintenance procedures as applicable;
  - k. data acquisition system; and
  - 1. data verification procedures.
- 3. The Company shall finalize the Continuous Monitoring Plan in consultation with the Manager.
- 4. The Company shall install, operate and maintain the Continuous Monitoring System, not later than six (6) months after the Manager has approved the Continuous Monitoring Plan, or within a time frame as directed or agreed to in writing by the District Manager. A current electronic copy of the Continuous Monitoring Plan shall be kept at an accessible location for easy access by persons responsible for supervising, operating or maintaining the Continuous Monitoring System and associated data as well as by a Ministry representative, upon request.
- 5. The Company shall notify the District Manager of the Commencement of Operation of the Facility at least one (1) week before the Commencement of Operation of the Facility.

#### 4. CONTINUOUS MONITORING DOCUMENTATION AND COMPLIANCE

- 1. The Company shall maintain records of the data recorded by the Continuous Monitoring System and make it available for review by staff of the Ministry upon request.
- 2. The Company shall update the ESDM Report in accordance with Section 26 of O. Reg. 419/05 and the Procedure Document with the data from the Continuous Monitoring System, if at any time the sulphur dioxide concentration data are indicative of an emission rate higher than the emission rate estimated in the ESDM Report.
- 3. If an exceedance of the sulphur dioxide standard established under O. Reg. 419/05 is predicted in the updated ESDM Report noted in condition 4.2, the Company shall notify the District Manager of the exceedance in accordance with the provisions of O. Reg. 419/05, and provide the following:
  - 1. details of the predicted exceedance;
  - 2. copy of the updated ESDM Report; and
  - 3. description of the measures taken to address the cause of the exceedance and to prevent similar exceedances in the future.

### 5. 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;
  - 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.
  - c. records related to fugitive dust control as required under Condition 2 of this Approval; and
  - d. records related to the operation of the Continuous Monitoring System as required under Conditions 3 and 4 of this Approval;

### 6. 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.

#### 7. 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.
- 2. The Company shall prohibit the loading and unloading of Trucks during the night-time hours from, 23:00 to 07:00.
- 3. The Company shall prohibit the idling of shipping Trucks at the Facility during the night-time hours from 23:00 to 07:00.

# 8. CHANGE OF OWNERSHIP

- 1. The Company shall notify the Director in writing, and forward a copy of the notification to the District Manager, within thirty (30) days of the occurrence of any of the following changes to Facility operations:
  - a. the ownership of the Facility;
  - b. the operator of the Facility;
  - c. the address of the Company;
  - d. the partners, where the Company is or any time becomes a partnership and a copy of the most recent declaration filed under the Business Names Act, R.S.O. 1990, c. B.17, shall be included in the notification; or
  - e. the name of the corporation where the Company is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the Corporations Information Act, R.S.O. 1990, c. C.39, shall be included in the notification.
- 2. In the event of any change in ownership of the Facility, the Company shall notify the successor of the existence of this Approval and provide the successor with a copy of this Approval, and the Company shall provide a copy of the notification to the District Manager and the Director.

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

- 1. Condition number 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 number 2 is included to emphasize that the Equipment and Facility must be maintained and operated in accordance with a procedure that will result in compliance with the EPA, O. Reg. 419/05 and this Approval and to require the Company to keep records and to provide information to staff of the Ministry so that compliance with the EPA, O. Reg. 419/05 and this Approval may be verified.
- 3. Condition number 3 is included to require the Company to gather and retain accurate information so that compliance with the EPA, O. Reg. 419/05 and this Approval may be verified.
- 4. Condition number 4 and 5 are included to require the Company to keep records and to provide information to staff of the Ministry so that compliance with the EPA, O. Reg. 419/05 and this Approval can be verified.
- 5. Condition number. 6 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.
- 6. Condition number 7 is included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Facility.
- 7. Condition number 8 is included to require the Company to notify/report to the Ministry so that compliance with the EPA, the regulations and this Approval can be verified.

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me, the Ontario Land 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 ("the Notice") 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.

and

This Notice must be served upon:

Registrar\*
Ontario Land Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5
OLT.Registrar@ontario.ca

The Minister of the Environment, Conservation and Parks 777 Bay Street, 5th Floor Toronto, Ontario M7A 2J3 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 Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.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 13th day of August, 2025

Nancy E Orpana, P.Eng.

Director

and

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

SA/

c: District Manager, MECP Kingston - District Cody Given, Cambium Inc.