

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 2034-BPSJHJ

Issue Date: July 15, 2020

Cyanide Destruct Systems Inc.
293 Saunders Road
Barrie, Ontario
L4N 9A3

Site Location: 293 Saunders Road
Barrie City, County of Simcoe, Ontario
L4N 9A3

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:

A facility involved in cyanide treatment, precious metals recovery, waste solvent transfer and non-volatile, non-hazardous liquid waste transfer, with the following discharges to air:

- One (1) exhaust system serving the cyanide treatment process, discharging into the air at a maximum volumetric flow rate of 0.61 cubic metre per second, through a stack (Source S1) having a diameter of 0.3 metre, extending 7.1 metres above the roof and 14 metres above grade and capturing emissions from the following equipment, processes and process points:
 - One (1) raw storage tank (Tank P) with a volume of 30,300 litres;
 - One (1) raw storage tank (Tank O) with a volume of 13,250 litres;
 - One (1) hydrolysis effluent tank (Tank L), equipped with a packed column water based scrubber, with a volume of 8,100 litres;
 - One (1) surge water tank (Tank T) with a volume of 9,000 litres;
 - One (1) filter press feed tank (Tank Q) with a volume of 3,400 litres;
 - One (1) filtrate sump tank (Tank R) with a volume of 750 litres;
 - One (1) final effluent tank (Tanks W) with a volume of 30,000 litres;
 - One (1) final effluent tank (Tanks W1) with a volume of 19,000 litres;
 - One (1) scrubber water recirculation tank (Tank M) with a volume of 950 litres;
 - One (1) pick up point from the drum opening area (AA);
 - One (1) pick up point from the hydrolysis reactor filling vent (BB);
 - One (1) pick up point from pre-treatment area (DD);

- One (1) laboratory fume hood; and
- One (1) quality assurance laboratory fume hood;
- One (1) exhaust system serving the precious metals recovery process, discharging into the air at a maximum volumetric flow rate of 1.12 cubic metre per second, through a stack (Source S2) having a diameter of 0.3 metre, extending 1.0 metres above the roof and 8.0 metres above grade and capturing emissions from the following equipment, processes and process points:
 - One (1) Silver electro-winning tank & cell (Tank D) with a volume of 1,900 litres;
 - One (1) Gold electro-winning tank & cell (Tank E) with a volume of 500 litres;
 - One (1) Gold electro-winning tank & cell (Tank E1) with a volume of 1,400 litres;
 - One (1) Gold stripping tank (Tank F) with a volume of 500 litres;
 - One (1) Gold strip rinse tank (Tank G) with a volume of 500 litres; and
 - One (1) Gold strip rinse tank (Tank H) with a volume of 500 litres;
- One (1) general ventilation exhaust (Source EF1) serving the cyanide treatment area discharging into the air at a maximum volumetric flow rate of 3.2 cubic metres per second through an exhaust having an effective exit diameter of 1.32 metre, exiting through the building wall at a height of 5.4 metres above grade;
- One (1) general ventilation exhaust (Source EF2) serving the general process area discharging into the air at a maximum volumetric flow rate of 3.54 cubic metres per second through an exhaust having an effective exit diameter of 0.91 metre, exiting through the building wall at a height of 5.49 metres above grade;
- One (1) exhaust system serving the waste solvent transfer operation fumehood, discharging into the air at a maximum volumetric flow rate of 0.2 cubic metre per second, through a stack (Source EX1) having a diameter of 0.4 metre, extending 6.0 metres above grade; and
- One (1) exhaust system serving the flammable solvents storage container discharging into the air at a maximum volumetric flow rate of 0.15 cubic metre per second, through a stack (Source EX2) having a diameter of 0.25 metre, extending 5.5 metres above grade;

all in accordance with the Application for Approval submitted by Cyanide Destruct Systems Inc., dated July 17, 2019 and signed by Scott Welles, Manager; and the supporting information, including the Emission Summary and Dispersion Modelling Report, submitted by Ortech Consulting Inc., dated July 17, 2019 and signed by Peter Piersol, and all additional information in support of the application provided by Ortech Consulting Inc.

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 Cyanide Destruct Systems 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 means the packed column water based scrubber and fumehood and any other 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;
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*; 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. MANAGEMENT AND NOTIFICATION OF COMPLAINTS

1. The *Company* shall initiate appropriate steps to determine all possible causes of each complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.
2. The *Company* shall notify the *District Manager*, in writing, of each environmental complaint within two (2) business days of the complaint or in a manner acceptable to the *District Manager*. The notification shall include:
 - a. a description, time and date of each incident to which the complaint relates;
 - b. wind direction at the time of the incident to which the complaint relates;

and

- c. 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.

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). 5210-ARFNVW issued on November 2, 2017.

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
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*** 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 15th day of July,
2020

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

NB/

c: District Manager, MECP Barrie District Office
Peter Piersol, ORTECH Consulting Inc.