

**AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL**

NUMBER 5510-CVVMZC  
Issue Date: February 23, 2024

Lystek International Corp  
125 McGovern Dr  
Cambridge, Ontario  
N3H 4R7

Site Location: Organic Materials Recovery Centre  
191 Eco Pky  
Southgate Township, County of Grey  
N0C 1B0

*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:*

An organic materials recovery facility, consisting of the following processes and support units:

- underground storage tanks;
- outdoor lined and covered storage lagoons for the storage of processed waste, each equipped with an iron oxide adsorption system for emissions control;
- reagent tanks for caustic storage;
- process reactors;
- ancillary structures including but not limited to weigh scales, pumping wells and ground-water monitoring network;
- Biofilter, used to control emissions from the organic materials recovery facility (including process reactors, underground storage tanks, caustic storage tanks and tipping hall);
- natural gas, propane and biogas fired boilers for process heat; and
- biogas flare with a natural gas pilot

including the Equipment and any other ancillary and support processes and activities, operating at a Facility Production Limit of up to 150,000 tonnes of organic waste per year, 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. "Acoustic Assessment Report" means the report, prepared in accordance with Publication NPC-233 and Appendix A of the Basic Comprehensive User Guide, prepared and signed by Sam East of GHD and dated May 31, 2022 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;
4. "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;
5. "Approval" means this entire Environmental Compliance Approval and any Schedules to it;
6. "Basic Comprehensive User Guide" means the Ministry document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended;
7. "Biofilter" means the enclosed biofilter, filled with organic media, used to control emissions from the organic materials recovery facility (including reactor tanks, liquid waste storage tanks, caustic storage tanks and tipping hall), described in the Company's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval;

8. "Company" means Lystek International Corp operating as Lystek International Corp 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;
9. "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;
10. "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;
11. "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;
12. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;
13. "Emission Summary Table" means a table described in paragraph 14 of subsection 26 (1) of O. Reg. 419/05;
14. "Environmental Assessment Act" means the Environmental Assessment Act, R.S.O. 1990, c.E.18;
15. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19;
16. "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;
17. "Equipment with Specific Operational Limits" means the biofilter, iron oxide adsorption systems, biogas fired boilers, biogas flare, 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;
18. "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;
19. "Exhausted" means the capacity of the iron oxide to adsorb contaminant emissions is reached, and the iron oxide media in the Iron Oxide Adsorption System is no longer able to effectively reduce emissions;
20. "Facility" means the entire operation located on the property where the Equipment is located;

21. "Flare" means the biogas flare used for the thermal destruction of flammable gases described in the Company's application, this Approval and in the supporting documentation referred therein, to the extent approved by this Approval;
22. "Facility Production Limit" means the production limit placed by the Director on the main product(s) or raw materials used by the Facility;
23. "Highest Ranking Person" means the highest ranking person regularly present at the Facility who has management responsibilities relating to the Facility;
24. "Iron Oxide Adsorption System" means the iron oxide adsorption systems, used to control emissions from each of the storage lagoons (storage lagoon 1 & 2), described in the Company's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval;
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 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;
31. "O. Reg. 419/05" means Ontario Regulation 419/05: Air Pollution – Local Air Quality, made under the EPA;

32. "Odour Management Plan" means a document which describes the current and planned odour management and control measures and the odour performance of the Facility.
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 GHD and dated May 31, 2022 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. "Point of Reception" means Point of Reception as defined by Publication NPC-300;
36. "Pre-Test Plan" means a plan for the Source Testing including the information required in Section 5 of the Source Testing Code;
37. "Procedure Document" means Ministry guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2018, 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-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;
40. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
41. "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;
42. "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- Procedure to Calculate and Record the 10-minute Average Concentration of Odour.
43. "Sensitive Receptor" means any location where routine or normal activities occurring at reasonably expected times would experience adverse effect(s) from odour discharges from the Facility, including one or a combination of:

- a. private residences or public facilities where people sleep (e.g.: single and multi-unit dwellings, nursing homes, hospitals, trailer parks, camping grounds, etc.),
  - b. institutional facilities (e.g.: schools, churches, community centres, day care centres, recreational centres, etc.),
  - c. outdoor public recreational areas (e.g.: trailer parks, play grounds, picnic areas, etc.), and
  - d. other outdoor public areas where there are continuous human activities (e.g.: commercial plazas and office buildings);
44. "Source Testing" means sampling and testing to measure emissions resulting from operating the Biofilter and the Iron Oxide Adsorption System, under conditions which yield the worst case emissions within the approved operating range of the Biofilter and the Iron Oxide Adsorption System, or as close as possible to the approved Facility Production Limit, or at operating conditions when the rates of odour, ammonia and hydrogen sulphide emissions from the Facility are anticipated to be maximum, which satisfies paragraph 1 of subsection 11(1) of O. Reg. 419/05;
45. "Source Testing Code" means the Ontario Source Testing Code, dated June 2010, prepared by the Ministry, as amended;
46. "Substantiated Complaint" means a complaint received either by the Company or the District Manager that has been confirmed by staff of the Ministry the cause of which is attributed to the Company's activities at the Facility;
47. "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;
48. "Trained Personnel" means one or more Facility personnel trained or knowledgeable through instruction and/or practice and able to carry out any necessary duties related to the operation of the Equipment and procedures to be followed in the event of a process upset or an emergency situation; and
49. "Written Summary Form" means the electronic questionnaire form, available on the Ministry website, that documents whether Modifications were undertaken at the Facility and compliance with the Approval, 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- Procedure to Calculate and Record the 10-minute Average Concentration of Odour.

### **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; and
  - b. Modifications to the Facility that would be subject to the Environmental Assessment Act.
3. Condition 2.1 of this Approval shall expire ten (10) years from the date of this Approval, 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, at all times, ensure that the noise emissions from the Facility comply with the limits set out in Ministry Publication NPC-300.
4. The Company shall, at all times, 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 and Conditions No. 11 and 12 in this Approval.

#### **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. WRITTEN SUMMARY FORM**

1. Subject to Condition 6.2, the Company shall prepare, and make available to the Ministry upon request, no later than August 31 of each year, a Written Summary Form signed by the Highest Ranking Person.
2. Condition 6.1 does not apply if:
  - a. Condition 2.1 has expired; and
  - b. the Written Summary Form has been completed for the year in which Condition 2.1 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 monitoring of the parameters for the Biofilter and the building as required in the conditions of this Approval;
  - b. procedures for monitoring the performance of the Iron Oxide Adsorption System;
  - c. procedures for the operation of the Flare such that at least 98 percent of any gas vented to the Flare is destroyed.
  - d. all appropriate measures to minimize odour and noise emissions from all potential sources, including but not limited to a contingency plan to deal with the storage of incoming materials when the Facility is shut down;
  - e. frequency of inspections and scheduled preventative maintenance;

- f. procedures to prevent upset conditions;
  - g. procedures to minimize all fugitive emissions;
  - h. procedures to prevent and/or minimize odorous emissions;
  - i. procedures to prevent and/or minimize noise emissions; and
  - j. 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 keep all doors in the enclosed building of the Facility fully closed at all times, except when used for necessary personnel or vehicle entrance and exit.
  4. Flare shall be operated with a flame present at all times when gas is vented through the Flare such that at least 98 percent of the gas is destroyed.
  5. The Company shall record the following information each time the Flare is used:
    - a. start time, stop time and date of flaring; and
    - b. reason for flaring
  6. A pilot flame must be present at all times when gas is vented through the Flare. The pilot flame shall be continuously monitored by a thermocouple to detect the presence of a flame.
  7. Flare shall be operated with no visible emissions except periods not to exceed a total of five minutes during any two consecutive hours. Visible emissions shall be continuously monitored and recorded while flaring is occurring.

## **8. COMPLAINTS RECORDING AND REPORTING**

1. A designated representative of the Company shall be available to receive complaints twenty-four (24) hours per day, seven (7) days per week.
2. If at any time, the Company receives any environmental complaints from the public regarding the operation of the Facility approved by this Approval, the Company shall respond to these complaints according to the following procedures:
  - a. Step 1: Record of Complaint - The Company shall record each complaint in a computerized tracking system. The information to be recorded shall include the following:

- i. name, address and the telephone number of the complainant, if known;
  - ii. time and date of the complaint; and
  - iii. details of the complaint;
- b. Step 2: Investigation of Complaint - After the complaint has been received by the Company, the Company shall within two (2) business days of the complaint date report, either to the District Manager by phone during office hours or to the Ministry's Spills Action Centre at 1-800-268-6060 off office hours, on the receipt of the complaint. The Company shall immediately initiate investigation of the complaint. The investigation shall include, as a minimum, the following:
  - i. determination of the activities undertaken in the Facility at the time of the complaint;
  - ii. meteorological conditions including, but not limited to the ambient temperature, approximate wind speed and its direction; and
  - iii. determination if the complaint is attributed to activities in the Facility and if so, the possible cause(s) of the complaint;
- c. Step 3: Corrective Action - The Company shall determine the remedial action(s) to address the cause(s) of the complaint and implement the remedial action(s) to eliminate the cause(s) of the complaint, as soon as practicably possible, and to prevent a similar occurrence in the future;
- d. Step 4: Written Response - The Company shall document the response provided to the complainant, if known, and shall make the document(s) available for inspection by staff of the Ministry upon request. The response shall include the results of the investigation of the complaint, the action(s) taken or planned to be taken to address the cause(s) of the complaint, and if follow-up response(s) would be provided. The Company shall, within three (3) business days, submit a report to the District Manager on that complaint, and all proposed action(s) to prevent recurrence of the complaint in the future;
- e. Step 5: Recording - All of the information collected and action(s) taken must be recorded in the computerized tracking system; and

- f. Step 6: Investigation Into Whether Suspension Warranted - If a complaint cannot be resolved to the satisfaction of the District Manager, or in the District Manager's opinion, an excessive number of verified complaints have been received during a short time period, the Company shall, upon written notice from the District Manager, submit, within three (3) business days of receiving the written notice, a written assessment of the complaint(s) including the results of any investigations conducted pursuant to condition 8.2.b, a list of actions with timelines that the Company is taking to address the cause of the complaint and provide a written assessment of whether a reduction in the amount of or a cessation from receiving waste would address the source of the complaint.

## **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 prepared 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. ODOUR MANAGEMENT PLAN**

1. The Company shall operate the Facility at all times in accordance with the most recent version of the Odour Management Plan.

2. The Company shall submit to the District Manager and the Director for review, an Odour Management Plan that describes the operations of the Facility and the odour control measures in place and planned for the Facility no later than six (6) months from the date of this Approval.
3. The Odour Management Plan shall include the following:
  - a. Facility and process descriptions including but not limited to normal and transient operations, start-up and shutdown, foreseeable maloperations and upsets, and unforeseen upsets which occurred, and sources of odour emissions associated with these operations;
  - b. An inventory of estimated or quantified odour emission rates from all significant sources of odour emission at the Facility prepared in accordance with the Ministry's Procedure for Preparing an Emission Summary and Dispersion Modelling Report dated February 2017, as amended;
  - c. Best management practices developed in accordance with the Ministry's Technical Bulletin on Best Management Practices for Industrial Sources of Odour and adopted in the Facility;
  - d. Odour levels at the Sensitive Receptors assessed in the ESDM Report, calculated in accordance with the procedures in Schedule C of this Approval, and updated with the inclusion of additional odour sources when identified;
  - e. A summary of Environmental Complaints relating to odour received by the Company and, where applicable, the results of the investigation(s) of the root causes, remedial actions implemented by the Company to address the sources of the complaints, and an analysis by the Company of the Environmental Complaints relating to odour to identify potential trends in the root causes;
  - f. Analysis of the information in (d) and (e) above to assess the odour performance of the Facility and the need to consider or implement further odour reduction measures in the Facility; and
  - g. Contingency actions that the Facility will implement when the Facility is shut down, including but not limited to procedures for the processing, storage or disposal of incoming material at locations other than the Facility.
4. The Company shall:
  - a. update and revise the Odour Management Plan:
    - i. within three (3) months of the implementation of any proposed modifications that may impact odour emissions; or
    - ii. if directed or agreed to in writing by the District Manager.

- b. maintain the updated Odour Management Plan at the Facility and make it available to the Ministry staff upon request.
- 5. The Company shall record, and retain such records, each time a specific preventative and odour impact reduction measure described in the Odour Management Plan is implemented.
- 6. If Substantiated Complaints have been received by the Company and the Ministry and the Company has been unable to resolve the Substantiated Complaints to the satisfaction of the District Manager, the District Manager may require the Company to prepare an odour technology benchmarking analysis undertaken with the objective of determining the technically feasible reduction in predicted odour impact at Sensitive Receptor(s), that includes:
  - a. A comprehensive list of all control methods for odour impact reduction based on the following:
    - i. a comparison of methods used by other facilities in the same or similar industrial sector to reduce odour emissions from the sources of odour emission at the Facility;
    - ii. a review of emission control requirements and strategies from other jurisdictions including the United States, United Kingdom and European Union that are relevant to the Facility; and
    - iii. where applicable, identification of technologies from other sectors with similar issues as the Facility, including preventative steps such as material substitutions, process changes and add-on controls or treatment methods;
  - b. An evaluation of the technical feasibility of the identified control options individually, and where applicable, control options in combination. This evaluation will include the availability and applicability of the option to the odour source, technical considerations, and any site-specific considerations; and
  - c. A ranking of feasible options, or option combinations with an assessment of predicted impact reductions at Sensitive Receptor(s) for odour sources and aggregate facility emissions of odour including percent contribution, odour concentrations and frequency assessment at sensitive receptors, as compared to current operations.

## **11. BIOFILTER**

- 1. Operation and Maintenance
  - a. The Company shall maintain an empty bed residence time of at least 45 seconds in the Biofilter;

- b. The Company shall prepare and implement the operating procedures and maintenance programs for the Biofilter, including:
  - i. the frequency of inspection and replacement of the media in the Biofilter;
  - ii. procedures for monitoring the performance of the Biofilter; and
  - iii. procedures for any record keeping activities relating to the operation and maintenance of the Biofilter;
- c. The Company shall perform a quarterly review of the operational data of the Biofilter, including an analysis of parameters (including but not limited to all of the parameters identified in Condition 11.2) trends and their comparison to the design levels and submit a report to the District Manager, not later than two (2) weeks after end of the previous quarter.

## 2. Monitoring

- a. The Company shall monitor and record the following physical parameters of the Biofilter and the building, through a combination of sensors, meters and physical probes, at frequencies as recommended by the Equipment suppliers or as determined by operational needs, except for frequencies identified in this Approval:
  - i. Biofilter:
    - a. process air flow through each cell;
    - b. differential pressure across media bed in each cell;
    - c. media temperature in each cell;
    - d. inlet air temperature;
    - e. process air relative humidity;
    - f. water flow of the media irrigation water;
    - g. moisture content of media in each cell (once every three (3) months as a minimum); and
    - h. ammonium ions and nitrates in the media (once every three (3) months as a minimum);
  - ii. Building:
    - a. hydrogen sulphide; and
    - b. ammonia;



- b. The Company shall monitor, record and keep in a log the concentration of ammonia manually, every six (6) hours, minimum 3 times per day from Monday to Friday, and every eight (8) hours, minimum 2 times per day on Saturdays (excluding statutory holidays) or at a frequency as agreed or directed by the District Manager at the inlet and outlet (just before the process air enters the Biofilter) of the humidifier;
- c. The Company shall notify the District Manager in writing when the rolling arithmetic average concentration (weekly) of ammonia leaving the humidifier (just before the process air enters the Biofilter) exceeds 25 parts per million.

### 3. Source Testing

- a. If Substantiated Complaints have been received by the Company and the Ministry and the Company has been unable to resolve the Substantiated Complaints to the satisfaction of the District Manager, the District Manager may require the Company to perform Source Testing to determine the rates of emission of odour, ammonia and hydrogen sulphide compounds from the Biofilter, in accordance with the procedures in Schedule B with changes necessary to the testing and/ or require the Company to, in consultation with the District Manager, conduct a test to identify potential leak points which could be a source of fugitive emissions during Facility operation.

## 12. IRON OXIDE ADSORPTION SYSTEM

### 1. Operation and Maintenance

- a. The Company shall maintain an iron oxide media content of approximately 8,400 kilograms in each of the Iron Oxide Adsorption Systems;
- b. The Company shall prepare and implement the operating procedures and maintenance programs for the Iron Oxide Adsorption Systems, including:
  - i. the frequency of inspection and replacement of the iron oxide media in the Iron Oxide Adsorption Systems;
  - ii. procedures for monitoring the performance of the Iron Oxide Adsorption Systems; and
  - iii. procedures for any record keeping activities relating to the operation and maintenance of the Iron Oxide Adsorption Systems;
- c. The Company shall ensure that the iron oxide media in the Iron Oxide Adsorption Systems are replaced before it is Exhausted.

- d. The Company shall perform a quarterly review of the operational data of the Iron Oxide Adsorption Systems, including an analysis of parameters (including but not limited to all of the parameters identified in Condition 12.2b) trends and their comparison to the design levels and submit a report to the District Manager, not later than two (2) weeks after end of the previous quarter.

## 2. Monitoring

- a. The Company shall monitor the operational parameters of the Iron Oxide Adsorption Systems, either as specified in the Manual of the Iron Oxide Adsorption Systems manufacturer, or as deemed necessary in accordance with site operational conditions. The results of monitoring these parameters shall be recorded in a log.
- b. Critical and key performance parameters of the Iron Oxide Adsorption Systems, such as the hydrogen sulphide and ammonia concentration measured at the inlet and outlet of Iron Oxide Adsorption Systems, shall be monitored on a daily basis or at a frequency as agreed or directed by the District Manager. Any parameter deviation outside of its accepted range shall be promptly communicated to the Trained Personnel so that corrective action(s) can be undertaken.

## 3. Source Testing

- a. If Substantiated Complaints have been received by the Company and the Ministry and the Company has been unable to resolve the Substantiated Complaints to the satisfaction of the District Manager, the District Manager may require the Company to perform Source Testing to determine the rates of emission of odour, ammonia and hydrogen sulphide compounds from the Iron Oxide Adsorption System, in accordance with the procedures in Schedule B with changes necessary to the testing and/ or require the Company to, in consultation with the District Manager, conduct a test to identify potential leak points which could be a source of fugitive emissions during Facility operation.

# 13. 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 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;
  - 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.

#### **14. 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.

### **SCHEDULE A**

#### **Supporting Documentation**

1. Environmental Compliance Approval Application, dated May 27, 2022, signed by Michael Beswick and submitted by the Company;
2. Emission Summary and Dispersion Modelling Report, prepared by GHD and dated May 31, 2022;
3. Acoustic Assessment Report prepared and signed by Sam East of GHD and dated May 31, 2022;
4. Additional information packages submitted by email by Matthew Griffin of GHD dated September 9, September 26, September 27 and October 2, 2023.

## **SCHEDULE B**

### **Source Testing Procedures**

1. The Company shall submit, not later than three (3) months prior to the Source Testing, to the Manager a Pre-Test Plan for the Source Testing required under this Approval. 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.
3. 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.
4. The Company shall submit a report (hardcopy 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:
  1. an executive summary;
  2. an identification of the applicable North American Industry Classification System code (NAICS) for the Facility;
  3. records of operating conditions at the time of Source Testing, including but not limited to the following:
    - a. production data and equipment operating rate as a percentage of maximum capacity;
    - b. Facility process information at the time of testing;
    - c. description of the emission sources controlled by the Biofilter and the Iron Oxide Adsorption System at the time of testing;
    - d. records of weather conditions such as ambient temperature and relative humidity, wind speed and direction at the time of testing; and
    - e. operational description of the general building ventilation serving the tipping hall at the time of testing;
  4. results of Source Testing, including the emission rate, emission concentration, and relevant emission factor.
5. 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.
6. 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.
  7. The Company shall update their ESDM Report in accordance with Section 26 of O. Reg. 419/05 with the results from the Source Testing if the calculated emission rates from the Source Testing are higher than the predicted rates in the ESDM Report and make these records available for review by staff of the Ministry upon request. Dispersion calculations for the 10-minute average concentration of Odour, at the Point of Impingement and the most impacted Sensitive Receptor, shall be calculated in accordance with the procedure outlined in Schedule C. The updated Emission Summary Table from the updated ESDM Report shall be submitted with the Source Testing report.

## SCHEDULE C

### Procedure to Calculate and Record the 10-minute Average Concentration of Odour

1. Calculate and record one-hour average concentration of odour at the Point of Impingement and at the most impacted Sensitive Receptor, employing the AERMOD atmospheric dispersion model or any other model acceptable to the Director, that employs at least five (5) years of hourly local meteorological data and that can provide results reported as individual one-hour average odour concentrations;
2. Convert and record each of the one-hour average concentrations predicted over the five (5) years of hourly local meteorological data at the Point of Impingement and at the most impacted Sensitive Receptor to 10-minute average concentrations using the One-hour Average to 10-Minute Average Conversion described below; and
3. Record and present the 10-Minute Average concentrations predicted to occur over a five (5) year period at the Point of Impingement and at the most impacted Sensitive Receptor in a histogram. The histogram shall identify all predicted 10-minute average odour concentration occurrences in terms of frequency, identifying the number of occurrences over the entire range of predicted odour concentration in increments of not more than 1/10 of one odour unit. The maximum 10-minute average concentration of odour at the Sensitive Receptor will be considered to be the maximum odour concentration corresponding to 99.5% of the time in the 5 year modelling period at the most impacted Sensitive Receptor. If elimination of meteorological anomalies in accordance with the section 6.5 of the ministry's document titled "Air Dispersion Modelling Guideline for Ontario" dated February 2017, as amended, is considered before considering frequency, only those anomalies per year of meteorology over the full modelling grid as required under section 14 of O. Reg. 419/05 shall be removed.
4. Use the following formula to convert and record one-hour average concentrations at the Point of Impingement and at the most impacted Sensitive Receptor to 10-minute average concentrations:

$$X_{10min} = X_{60min} * 1.65$$

where  $X_{10min}$  = 10-minute average concentration

$X_{60min}$  = one-hour average concentration

(Equation: X Subscript 10 min Baseline equals X Subscript 60 min Baseline times 1.65, where X Subscript 10 min Baseline equals 10-minute average concentration and X Subscript 60 min Baseline equals one-hour average concentration.)

*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. WRITTEN SUMMARY FORM**

Condition No. 6 is included to require the Company to prepare, and make available to the Ministry upon request, a yearly Written Summary Form, 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. ODOUR MANAGEMENT PLAN**

Condition No. 10 is included to emphasize that the Facility/ Equipment must be operated according to a procedure that will result in compliance with the EPA, the Regulations and this Approval.

## **9. BIOFILTER**

Condition No. 11 is included to emphasize that the Biofilter must be maintained and operated according to a procedure that will result in compliance with the EPA, the Regulations and this Approval and to require the Company to gather accurate information so that the environmental impact and subsequent compliance with the EPA, the regulations and this Approval can be verified.

## **10. IRON OXIDE ADSORPTION SYSTEM**

Condition No. 12 is included to emphasize that the Iron Oxide Adsorption System must be maintained and operated according to a procedure that will result in compliance with the EPA, the Regulations and this Approval and to require the Company to gather accurate information so that the environmental impact and subsequent compliance with the EPA, the regulations and this Approval can be verified.

## **11. CHANGE OF OWNERSHIP**

Condition No. 13 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.

## **12. REVOCATION OF PREVIOUS APPROVALS**

Condition No. 14 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.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s).  
6808-BQAPV3 issued on July 6, 2020**

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.



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:

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

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 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](http://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 23rd day of February, 2024



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Nancy E Orpana, P.Eng.

Director

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

SM/

c: District Manager, MECP Owen Sound  
Matthew Griffin, GHD Ltd.