

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 6808-BQAPV3

Issue Date: July 6, 2020

Lystek International Inc.
125 McGovern Drive, No. 1
Cambridge, Ontario
N3H 4R7

Site Location: Organic Materials Recovery Centre
191 Eco Parkway
Parts 1 & 2, Ref. Plan 16R9654
Lot 235 & 236, Concession 2 SWTSR
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:

Description Section

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, 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);

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 Feedstock* 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*, by Matthew Griffin of GHD Ltd. and dated June 3, 2019 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. "*Approval (Waste)*" means Environmental Compliance Approval No. 8850-8V6S7Z, as amended, issued in respect of activities mentioned in subsection 27(1) of the *EPA* at the *Facility*;
7. "*Basic Comprehensive User Guide*" means the *Ministry* document titled "Basic Comprehensive Certificates of Approval (Air) User Guide" dated March 2011, as amended;
8. "*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*;
9. "*Building Code Act, 1992*" means the Building Code Act, S.O. 1992, c.23, as amended and any replacement or successor legislation;

10. "*Company*" means Lystek International 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*;
11. "*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;
12. "*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*;
13. "*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*;
14. "*District Manager*" means the District Manager of the appropriate local district office of the *Ministry*, where the *Facility* is geographically located;
15. "*Emission Summary Table*" means a table described in paragraph 14 of subsection 26 (1) of *O. Reg. 419/05*;
16. "*Environmental Assessment Act*" means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended;
17. "*EPA*" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
18. "*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;
19. "*Equipment with Specific Operational Limits*" means 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*;
20. "*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*;
21. "*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;
22. "*Facility*" means the entire operation located on the property where the *Equipment* is located;
23. "*Facility Production Limit*" means the production limit placed by the *Director* on the

main product(s) or raw materials used by the *Facility*;

24. "*Fugitive Odour Management Plan*" means a document or a set of documents that provide written instructions to staff of the *Company*, for the purpose of meeting the requirements of this *Approval*;
25. "*Iron Oxide Adsorption System*" means the iron oxide adsorption system, used to control emissions from 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*;
26. "*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;
27. "*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*;
28. "*Manual*" means a document or a set of documents that provides written instructions to staff of the *Company*;
29. "*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;
30. "*Ministry*" means the ministry of the *Minister*;
31. "*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*;
32. "*Noise Abatement Action Plan*" means the noise abatement program developed by the *Company* detailed in the *Acoustic Assessment Report* submitted to the *Director* and *District Manager* and approved by the *Director*, designed to achieve compliance with the sound level limits set in *Publication NPC-300*, as applicable;
33. "*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;

34. "*O. Reg. 419/05*" means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended;
35. "*Organic Feedstock*" means the organic waste listed in Condition 10 in the *Company's "Approval (Waste)"*, that the *Company* is approved to receive and process in the *Facility*;
36. "*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 Matthew Griffin / GHD Ltd. and dated June 3, 2019 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this *Approval*;
37. "*Point of Impingement*" has the same meaning as in section 2 of *O. Reg. 419/05*;
38. "*Point of Reception*" means Point of Reception as defined by *Publication NPC-300*;
39. "*Pre-Test Plan*" means a plan for the Source Testing including the information required in Section 5 of the Source Testing Code;
40. "*Procedure Document*" means *Ministry* guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated March 2018, as amended;
41. "*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*;
42. "*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;
43. "*Publication NPC-233*" means the *Ministry* Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
44. "*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;
45. "*Schedules*" means the following schedules attached to this *Approval* and forming part of this *Approval* namely:
 - Schedule A - Supporting Documentation;
 - Schedule B - Source Testing Procedure; and

- Schedule C - Procedure to Calculate and Record the 10-minute Average Concentration of Odour;

46. "*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);
47. "*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;
48. "*Source Testing Code*" means the Ontario Source Testing Code, dated June 2010, prepared by the Ministry, as amended;
49. "*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*;
50. "*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;
51. "*Trained Personnel*" means one or more *Facility* personnel trained in accordance with the requirements of Condition 22.1 of the *Company's "Approval (Waste)"*, including an employee 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;
52. "*Written Summary Form*" means the electronic questionnaire form, available on

the *Ministry* website, and supporting documentation, that documents the activities undertaken at the *Facility* 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 ensure that the noise emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-300*.
4. The *Company* shall ensure that the vibration emissions from the *Facility* comply with the limits set out in *Ministry Publication NPC-207*.
5. The *Company* shall:
 - a. implement the *Noise Control Measures* as outlined in the

Noise Abatement Action Plan not later than twelve (12) months after the issuance of an above grade building permit under the *Building Code Act, 1992*, for a noise sensitive building on the vacant lands depicted as POR4 in Figure 2 of the *Acoustic Assessment Report*; and

- b. following the implementation of the *Noise Abatement Action Plan* ensure that the *Noise Control Measures* are properly maintained and continue to provide the acoustical performance outlined in the *Acoustic Assessment Report*.

6. The *Company* shall operate any *Equipment with Specific Operational Limits* approved by this *Approval* in accordance with the *Original ESDM Report*.

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. REPORTING REQUIREMENTS

1. Subject to Condition 6.2, the *Company* shall provide the *Director* no later than August 31 of each year, a *Written Summary Form* to be submitted through the *Ministry's* website that shall include the following:
 - a. a declaration of whether the *Facility* was in compliance with section 9 of the *EPA, O. Reg. 419/05* and the conditions of this *Approval*;
 - b. a summary of each *Modification* satisfying Condition 2.1.a. and 2.1.b. that took place in the previous calendar year that resulted in a change in the previously calculated concentration at a *Point of Impingement* for any *Compound of Concern* or resulted in a change in the sound levels

reported in the *Acoustic Assessment Summary Table* at any *Point of Reception*.

2. Condition 6.1 does not apply if Condition 2.1 has expired.

7. OPERATION AND MAINTENANCE

1. The *Company* shall ensure that the *Facility* and the *Equipment* are properly operated and maintained at all times. The *Company* shall:
 - a. prepare, not later than three (3) months from the date of this *Approval*, and update, as necessary or as a minimum annually, a *Manual* outlining the operating procedures for the *Facility* that relate to noise, as well as the operating procedures and a maintenance program for the *Equipment* in accordance with good engineering practice, including:
 - i. routine and emergency operating and maintenance procedures recommended by the *Equipment* suppliers, including operating procedures for the *Facility* that relate to noise during *Equipment* malfunction, power outages, by-passes and other emergency or abnormal operating conditions and procedures for notifying the *Ministry* of such events;
 - ii. frequency of monitoring of the parameters for the *Biofilter* and the building as required in the conditions of this *Approval*;
 - iii. procedures for monitoring the performance of the *Iron Oxide Adsorption System*;
 - iv. procedures for any record keeping activities relating to the operation and maintenance of the *Equipment* and noise related activities at the *Facility*; and
 - v. all appropriate measures to minimize 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;
 - b. implement the procedures/recommendations of the approved and updated operation and maintenance *Manual*.
2. The *Company* shall ensure that all *Processes with Significant Environmental Aspects* are operated and maintained at all times in accordance with this *Approval*, the operating procedures and maintenance programs.

8. COMPLAINTS RECORDING PROCEDURE

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 7.2(2), 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* provided to the *Ministry* 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 PERFORMANCE REQUIREMENTS

- 1. The *Company* shall operate and maintain the *Facility* so that the maximum

10-minute average concentration of odour at the most impacted *Sensitive Receptor*, computed in accordance with Schedule C, resulting from the operation of the *Facility*, shall not be greater than 1.0 odour unit under all atmospheric conditions.

11. FUGITIVE ODOUR MANAGEMENT PLAN

1. The *Company* shall implement the procedures/recommendations of the approved and updated *Fugitive Odour Management Plan* in order to prevent or mitigate fugitive odour emissions resulting from the operation of the *Facility*. The *Company* shall review annually and update, as necessary, the *Fugitive Odour Management Plan* outlining the following:
 - a. all aspects of operation of the *Facility* that have a potential to release fugitive odour emissions; and
 - b. the physical and procedural controls such as policies, standard operating/maintenance procedures, monitoring program, management strategies/program required in order to prevent or mitigate any impacts on the *Sensitive Receptors* and to ensure that all odour mitigation techniques remain operational at optimal capacity throughout all operational scenarios.
2. 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.

12. 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 12.2) 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 Manger*, 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.

13. IRON OXIDE ADSORPTION SYSTEM

1. Operation and Maintenance

- a. The *Company* shall maintain an iron oxide media content of approximately 8,400 kilograms in the *Iron Oxide Adsorption System*;
- b. The *Company* shall prepare and implement the operating procedures and maintenance programs for the *Iron Oxide Adsorption System*, including:
 - i. the frequency of inspection and replacement of the iron oxide media in the *Iron Oxide Adsorption System*;
 - ii. procedures for monitoring the performance of the *Iron Oxide Adsorption System*; and
 - iii. procedures for any record keeping activities relating to the operation and maintenance of the *Iron Oxide Adsorption System*;
- c. The *Company* shall ensure that the iron oxide media in the *Iron Oxide Adsorption System* is replaced before it is *Exhausted*.
- d. The *Company* shall perform a quarterly review of the operational data of the *Iron Oxide Adsorption System*, including an analysis of parameters (including but not limited to all of the parameters identified in Condition 13.2b) 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 System*, either as specified in the *Manual* of the *Iron Oxide Adsorption System* 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 System*, such as the hydrogen sulphide and ammonia concentration measured at the inlet and outlet of *Iron Oxide Adsorption System*, 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. The *Company* shall perform *Source Testing* in accordance with the procedures in Schedule B to determine the rates of emission of odour, ammonia and hydrogen sulphide from the *Iron Oxide Adsorption System*, four (4) months after the issuance of this *Approval*, or at a date as directed or agreed to in writing by the *District Manager*.
- b. 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 Manger*, the *District Manager* may require the *Company* to repeat the *Source Testing* in accordance with Condition 13.3a with changes necessary to the testing.

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 June 3, 2019, signed by Simon Meulendyk and submitted by the *Company*;
2. Emission Summary and Dispersion Modelling Report, prepared by Matthew Griffin / GHD Ltd. and dated June 3, 2019;
3. Acoustic Assessment Report prepared by Matthew Griffin of GHD Ltd. and dated June 3, 2019.
4. An email from Simon Meulendyk, Lystek International Inc., sent to Rosalinda Ahmed, Ontario Ministry of the Environment, Conservation and Parks, and dated June 18, 2020, responding to request for additional information on equipment design and odour control approach;

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 at the *Point of Impingement* and at the most impacted *Sensitive Receptor*

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:

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

where $X_{10\text{min}}$ = 10-minute average concentration
 $X_{60\text{min}}$ = 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 ongoing 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. REPORTING REQUIREMENTS

Condition No. 6 is included to require the *Company* to provide a yearly *Written Summary Form* to the *Ministry*, 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. 7.1 is included to emphasize that the *Equipment* and the *Facility* must be maintained and operated according to a procedure that will result in compliance with the *EPA*, the Regulations and this *Approval*. Condition No. 7.2 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 RESPONSE 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 PERFORMANCE REQUIREMENT

Condition No. 10 is included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the *Facility*.

9. FUGITIVE ODOUR MANAGEMENT PLAN

Condition No. 11 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.

10. BIOFILTER

Condition No. 12.1 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. Condition Nos. 12.2 and 12.3 are included 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. IRON OXIDE ADSORPTION SYSTEM

Condition No. 13.1 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. Condition Nos. 13.2 and 13.3 are included 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.

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). 2478-8W4L3W issued on October 5, 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
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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 6th day of July, 2020

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

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