

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 1984-BD9NBD
Issue Date: January 24, 2025

Southgate Renewables GP Inc., as general partner for and on behalf of Southgate
Renewables LP
77 King St W TD Centre North Tower, No. 3000
Toronto, Ontario
M5K 1G8

Site Location: 100 Eco-Park Way, Dundalk
Southgate Township, County of Grey

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

a 4.0-hectare waste disposal site (anaerobic digestion facility), to receive and process a maximum of 73,000 tonnes of organic waste per year to generate approximately 10,118 tonnes of biogas per year, 9,586 tonnes of solid digestate per year and 89,796 tonnes of liquid digestate per year, and consisting of the following processes and support units:

Fully enclosed Organics Receiving Building comprising the following working areas:

- Tipping Floor;
- one (1) Liquid Tank, one (1) Process Water Tank, three (3) Separators, three (3) Mix Tanks, two (2) Feed Slurry Tanks, one (1) Filtrate Tank, three (3) Grit Removal Systems, three (3) Solids (RUNI or equivalent) Dewatering Presses, three (3) Screw Presses, one (1) Grit Tank and one (1) Nurse Tank,

equipped with the following ventilation system:

- one (1) ventilation system that maintains negative pressure in the SSO Receiving Building while drawing air from the areas including but not limited to the maintenance area, future recycling, liquid receiving, production office, pump station, mechanical room, mezzanine area, reject bunker, solid separation bunker, processing area, manure and SSO receiving, secondary containment pit, membrane roof, outgoing digestate loading area and SSO requiring pasteurization receiving area, the bay doors, floor drainage areas, the tipping floor and the managed receiving tank, pit and shredder room, plastics separation room and in the plastic bulking container Room discharging odourous air through one (1) enclosed, down-flow Biofilter (Source S1), consisting of two (2) cells, equipped with two (2) upstream packed-tower humidifiers (one for each cell) to maintain the process air relative humidity and in built sprinkler system for media irrigation, with a minimum Empty Bed Residence Time (EBRT) of 40 seconds, each cell having dimensions of about 10 metres long by 40 metres wide, each cell filled with 720 cubic metre of engineered inorganic media (BIOSORBENS or equivalent) with a total of 1,440 cubic metre of media to a height of approximately 1.8 metres to remove odour in the incoming air, exhausting into the air at a maximum volumetric flow rate of 14.22 actual cubic metres per second, through a stack having an exit diameter of 0.94 metres extending 30.0 metres above grade;

and including the following organic waste storage areas:

- Tipping Floor with a capacity of 400 tonnes;
- four (4) indoor below grade Slurry Tanks, each having a maximum holding capacity of 120 cubic metres;
- three (3) indoor below grade Surge Tanks, each having a maximum holding capacity of 1 cubic metre;
- one (1) indoor above grade Rejects Bunker having a maximum holding capacity of 140 cubic metres;
- one (1) indoor above grade Solids Separation Bunker having a maximum holding capacity of 140 cubic metres;
- one (1) indoor above grade Grit Tank with a maximum holding capacity of 10 cubic metres;
- one (1) indoor above grade Nurse Tank with a maximum holding capacity of 10 cubic metres;

and including the organic waste pre-processing equipment and residual waste management equipment and storage;

Tank Yard:

- two (2) 1500 cubic metres hydrolyzers, three (3) 3,500 cubic metres anaerobic digesters, two (2) 330 cubic metres pasteurizers and one (1) 2000 cubic metres liquid digestate storage tank that are covered with an insulated double membrane that is approved for use with biogas and are essentially impermeable to methane gas. The double membrane gas holders will all be connected so all the gas produced in the headspaces of the hydrolyzers, anaerobic digesters, pasteurizers and digestate storage

tanks is mixed and treated together through the Biogas Cleaning and Upgrading System. The air space between the double membrane is vented and processed through the biofilter prior to being released to the atmosphere.

Natural Gas Fired Boilers:

- three (3) natural gas fired boilers (Fulton EDR-2000), each with a maximum heat input rating of 2,110,112 kilojoules per hour, discharging to the air at a maximum volumetric flow rate of 936 cubic metre per second, through a common stack (Sources S2) having an exit diameter of 0.35 metre, extending 8.5 metres above grade;

Co-generation:

- two (2) natural gas-fired Combined Heat and Power Cogeneration Units, each having a maximum power rating of 1,600 kilowatts of electrical output, equipped with a selective catalytic reduction system, discharging to the air at a maximum volumetric flow rate of 5,760 cubic metre per second, through separate stacks (Sources S3a and S3b) having an exit diameter of 0.46 metre, extending 5.0 metres above grade;

Biogas Cleaning and Upgrading System:

- one (1) Biogas Cleaning and Upgrading System, used to produce Renewable Natural Gas from biogas, equipped with:
 - hydrogen sulphide and volatile organic compounds/siloxane reduction systems;
 - compression, chilling and moisture removal, and carbon dioxide gas removal using membrane separation system; and
 - compression of Renewable Natural Gas to pipeline pressure requirements;

discharging to the air at a maximum volumetric flow rate of 432 cubic metre per second, through a stack (Sources S4) having an exit diameter of 0.10 metre, extending 6.5 metres above grade;

Biogas Flare:

- one (1) Biogas Flare, operating as a standby biogas combustion control device during periods when the biogas cleaning and upgrading system is down or when biogas generation exceeds the capacity of the biogas cleaning and upgrading system or when biogas generation from the digestate storage tank requires flaring; The biogas flare has a maximum digester gas burning capacity of 1,829 standard cubic metres per hour and being used to burn a maximum of 1,829 standard cubic metres per hour of biogas discharging to the air through a stack (Source S5), at a maximum volumetric flow rate of 1,116 cubic metre per second having an exit diameter of 3.2 metres, extending 7.8 metres above grade;

to be used for processing of the following types of waste generated in the Province of Ontario and States of New

York, Michigan and Ohio:

Organic Waste, limited to solid or liquid organic residues from industrial, commercial, and institutional sources and source separated organics (SSO) listed in Condition 3.0 of this Approval, all readily biodegradable.

Note: Use of the site for any other type of waste is not approved under this environmental compliance approval, and requires obtaining a separate approval amending this environmental compliance approval.

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

"Adverse Effect" has the same meaning as defined in the *EPA*;

"AERMOD" means the dispersion model developed by the American Meteorological Society/U.S. Environmental Protection Agency Regulatory Model Improvement Committee (AERMIC) including the PRIME (Plume Rise Model Enhancement) algorithm, used to calculate one-hour average concentrations of a contaminant at the Point of Impingement and at the most impacted Sensitive Receptor;

"Agricultural Residues" means the Organic Waste, limited to the agricultural waste defined in *Reg. 347*, limited to solid waste with a slump of 150 mL or less using the Test Method for the Determination of Liquid Waste (slump test) set out in Schedule 9 to *Reg. 347* and destined for the Anaerobic Digester at the Site;

"Anaerobic Digester" means the anaerobic digester used for anaerobic digestion of the approved Organic Waste and as defined in *Reg. 347*;

"Anaerobic Digestion Output" means any solid or liquid material that result from the treatment of anaerobic digestion materials in an Anaerobic Digester;

"Anaerobic Digestion Wastes" means the mixture of the Organic Waste and the On-Farm Anaerobic Digestion Wastes that is destined for anaerobic digestion at the Site;

"Approval" means this entire Environmental Compliance Approval and any Schedules attached to it;

"bar" is a unit of pressure;

"Biofilter" means the one (1) enclosed biofilter described in this Approval and in the supporting documentation referred to herein, to the extent approved by this Approval;

"Biogas Cleaning and Upgrading System" means the biogas cleaning and upgrading system described in the Owner's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval;

"Biogas Flare" means the biogas flare system described in the Owner's application, this Approval and in

the supporting documentation submitted with the application, to the extent approved by this Approval;

"**CFIA**" means the Canadian Food Inspection Agency;

"**Clean-Out Material**" means the material removed from the Hydrolysis Tanks, the Anaerobic Digesters, the Pasteurization Tanks or the Digestate Storage Tanks due to floating or settling of the material and that has been recovered as part of maintenance of the Hydrolysis Tanks, the Anaerobic Digesters, the Pasteurization Tanks or the Digestate Storage Tanks;

"**Combined Heat and Power Cogeneration Unit**" means the two (2) combined heat and power cogeneration units rated at 1,600 kilowatts and equipped with a selective catalytic reduction system, described in the Owner's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval;

"**Digestate**" means the Organic Waste and the On-Farm Anaerobic Digestion Materials anaerobically digested (biodegraded/processed) at the Site;

"**Director**" means a person appointed by the Minister pursuant to section 5 of the *EPA* for the purposes of Part II.1 of the *EPA*;

"**District Manager**" means the District Manager of the appropriate local district office of the Ministry, where the Site is geographically located;;

"**EPA** " means the *Environmental Protection Act* , R.S.O. 1990, c. E. 19;

"**Equipment**" means the equipment, works or processes described in the Owner's application, this Approval and in the Supporting Documentation, to the extent approved by this Approval;

"**Equivalent Equipment**" means a substituted equipment or like-for-like equipment that meets the required quality and performance standards of a-named equipment;

"**ESDM Report**" means the Emission Summary and Dispersion Modelling Report prepared in accordance with section 26 of *O. Reg. 419/05* and the Procedure Document by Claire Allen, P.Eng. / Callen Environmental Inc. and dated January 2025 submitted in support of the application including any addendum submissions made during the Ministry's review of the Owner's application;

"**Facility**" means the entire operation located on the property where the Equipment is located;

"**Fertilizer**" means any substance or mixture of substances, containing nitrogen, phosphorus, potassium or other plant food, that is manufactured, sold or represented for use as a plant nutrient, as defined in the *Fertilizers Act*;

"**Fertilizers Act (Canada)**" means the *Fertilizers Act* , RSC, 1985, c-F-10, as amended;

"Financial Assurance" is as defined in Section 131 of the *EPA*;

"Human Body Waste" means waste derived from or containing wastes from the human body, limited to used diapers, used incontinence products and used sanitary products collected through the municipal source separated waste collection programs;

"Malfunction" means any sudden, unplanned, infrequent and not reasonably preventable failure of the equipment associated with maintaining or monitoring negative pressure and/or negative air balance in the Organics Receiving Building, excluding failures that may be caused in part by poor maintenance or negligent operation;

"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;

"Manual" means a document or a set of documents that provide written instructions to staff of the Owner;

"Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;

"mL" means millilitre(s);

"m²" means square metre(s);

"m³" means cubic metre(s);

"NMA " means the *Nutrient Management Act, 2002* , S.O. 2002, c. 4;

"O. Reg. 267/03 " means Ontario Regulation 267/03: (General), made under the NMA;

"O. Reg. 419/05 " means Ontario Regulation 419/05: (Air Pollution – Local Air Quality), made under the EPA;

"Odour Management Plan" means a document or a set of documents that provides written instructions to staff of the Owner, for the purpose of meeting the requirements of Condition 6.8 of this Approval;

"Off-Farm Anaerobic Digestion Materials" is as defined in *O. Reg. 267/03* and *Reg. 347*, and within the context of this Approval it means the non-agricultural Organic Waste destined for the Anaerobic Digester at the Site;

"Organic Waste" means solid and liquid non-hazardous readily biodegradable waste and as further

described in Condition 3.1 of this Approval to be received and managed by the Owner;

"Organics Receiving Building" means the building where the Organic Waste is received, temporarily stored and pre-processed, prior to transfer to the Pasteurization Tanks, Hydrolysis Tank and the Anaerobic Digester;

"Owner" means any person that is responsible for the establishment or operation of the Site being approved by this Approval, and includes Southgate Renewables GP Inc., as general partner for and on behalf of Southgate Renewables LP and its successors and assigns;

"OWRA " means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40;

"PA " means the *Pesticides Act* , R.S.O. (1990), c. P. 11;

"Point of Impingement" has the same meaning as in section 2 of *O. Reg. 419/05*;

"Pre-Test Plan" means a plan for the Source Testing including the information required in Section 5 of the Source Testing Code;

"Procedure Document" means Ministry guidance document titled *"Procedure for Preparing an Emission Summary and Dispersion Modelling Report"* dated March 2018, as amended;

"Processed Organic Waste" is as defined as defined in *Reg. 347*. Processed Organic Waste produced at the Site does not include sewage residue from sewage works that are subject to the provisions of the *OWRA*;

"Professional Engineer" means a Professional Engineer as defined within the *Professional Engineers Act*, R.S.O. 1990, c. P.28, as amended;

"Provincial Officer" means any person designated in writing by the Minister as a provincial officer pursuant to Section 5 of the *OWRA*, Section 5 of the *EPA*, Section 17 of the *PA*, Section 4 of the *NMA*, or Section 8 of the *SDWA*;

"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;

"Reg. 347 " means R.R.O. 1990, Reg. 347: (General - Waste Management), made under the *EPA*;

"Rejected Waste" means the waste which is not approved for receipt at the Site;

"Residual Waste" means the waste resulting from the processing of the incoming Organic Waste at the Site and which requires final disposal or further processing off-Site;

"Schedules" means the following schedules attached to this Approval and forming part of this Approval

namely:

- a. Schedule A - Supporting Documentation;
- b. Schedule B - Procedure to Calculate and Record the 10-minute Average Concentration of Odour;
- c. Schedule C - Emission Limits - Combined Heat and Power Cogeneration Unit; and
- d. Schedule D - Source Testing Procedures;

"**SDWA** " means the *Safe Drinking Water Act, 2002*, S.O. 2002, c. 32;

"**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. commercial areas where there are continuous human activities (e.g.: commercial plazas and office buildings);
- 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. private residences or public facilities where people sleep (e.g.: single and multi-unit dwellings, nursing homes, hospitals, trailer parks, camping grounds, etc.),

"**Site**" means the waste disposal site approved under this Approval, located at 100 Eco-Park Way in Dundalk, Southgate Township, County of Grey, Ontario;

"**Source Testing Code**" means the Ontario Source Testing Code, dated June 2010, prepared by the Ministry, as amended;

"**Source Testing**" means sampling and testing to measure emissions resulting from operating the Biofilter and the Combined Heat and Power Cogeneration Units, under conditions which yield the worst case emissions within the approved operating range of the Biofilter and the Combined Heat and Power Cogeneration Units which satisfies paragraph 1 of subsection 11(1) of *O. Reg. 419/05*;

"**Spill**" is as defined in the *EPA*;

"**SSO**" means the source separated Organic Waste which consists of the Organic Waste suitable for anaerobic digestion, which has been separated at its source of origin by the generator of the waste and including the bags used by the generator to encase the Organic Waste at the source of generation; and

"**Trained Personnel**" means personnel knowledgeable in the following through instruction and/or practice:

- relevant air, noise, wastewater and waste management legislation, regulations and guidelines;
- major environmental concerns pertaining to the waste to be handled at the Site;
- occupational health and safety concerns pertaining to the processes and wastes to be handled at the Site;

- management procedures including the use and operation of equipment for the processes and wastes to be handled at the Site;
- records keeping procedures;
- contingency plan and emergency response procedures;
- specific written procedures for the control of adverse effects from the Site;
- specific written procedures for refusal of unacceptable incoming Organic Waste loads; and
- the requirements of this Approval.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1.0 GENERAL

1.1 Compliance

- (1) The Owner shall ensure compliance with all the conditions of this Approval and shall ensure that any person authorized to carry out work on or operate any aspect of the Site, including any aspect of the Works, is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
- (2) Any person authorized to carry out work on or operate any aspect of the Site shall comply with the conditions of this Approval.

1.2 Build, etc. in Accordance

- (1) Except as otherwise provided by this Approval, the Site shall be designed, developed, built, operated and maintained in accordance with the application for this Environmental Compliance Approval dated December 18, 2023, signed by Gary Kissack, Southgate Renewables GP Inc. and submitted by CH Four Biogas Inc.
- (2) The Site shall be constructed and installed and must commence operation within five (5) years of issuance of this Approval, after which time the Approval ceases to apply in respect of any portions of the Site not in operation. In the event that the construction, installation and/or operation of any portion of the Site is anticipated to be delayed beyond the time period stipulated, the Owner shall submit to the Director an application to amend the Approval to extend this time period, at least six (6) months prior to the end of the period. The amendment application shall include the reason(s) for the delay and whether there is any design change(s).
- (3) Within thirty (30) days of commencement of construction, the Owner shall prepare and submit to the District Manager a schedule for the completion of construction and commissioning operation of the Site. The Owner shall notify the District Manager within thirty (30) days of the commissioning operation of any the Site. Upon completion of construction of the Site, the Owner shall prepare and submit a statement to the District Manager, certified by a Professional

Engineer, that the Site is constructed in accordance with this Approval.

1.3 As-built Drawings

- (1) A set of as-built drawings, certified by a Professional Engineer and showing the design of the Site, shall be kept at the Site at all times.

1.4 Interpretation

- (1) Where there is a conflict between a provision of any document, including the application referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.
- (2) Where there is a conflict between the application and a provision in any documents listed in Schedule "A", the application shall take precedence, unless it is clear that the purpose of the document was to amend the application and that the Ministry approved the amendment.
- (3) Where there is a conflict between any two documents listed in Schedule "A", other than the application, the document bearing the most recent date shall take precedence.
- (4) The requirements of this Approval are severable. If any requirement of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such requirement to other circumstances and the remainder of this Approval shall not be affected thereby.

1.5 Other Legal Obligations

- (1) The issuance of, and compliance with the conditions of this Approval does not:
 - a. relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement; or
 - b. limit in any way the authority of the Ministry to require certain steps be taken or to require the Owner to furnish any further information related to compliance with this Approval.
- (2) Despite an Owner or any other person fulfilling any obligations imposed by this Approval, the person remains responsible for any contravention of any other condition of this Approval or any applicable statute, regulation, or other legal requirement resulting from any act or omission that caused the Adverse Effect or impairment of water quality.

1.6 Adverse Effect

- (1) The Site shall be constructed, operated and maintained in a manner which ensures the health and safety of all persons and prevents generation of negative environmental impacts including but not limited to dust, odours, vectors, pests, birds, litter, vibration, noise and any other negative

environmental effects that may cause an Adverse Effect.

- (2) If at any time dust, including dust from vehicles leaving the Site, odours, vectors, pests, birds, litter, vibration, noise or other such negative environmental effects are generated at the Site and cause an Adverse Effect, the Owner shall take immediate and appropriate remedial action(s) that is/are necessary to alleviate the Adverse Effect, including suspension of all waste management activities and removal of waste from the Site, if necessary.
- (3) The Owner shall take steps to minimize and ameliorate any Adverse Effect on the natural environment or impairment of water quality resulting from the approved operations at the Site, including such steps as accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.

1.7 Change of Owner

- (1) The Owner 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 change in:
 - a. the ownership of the Site;
 - b. the operator of the Site;
 - c. the address of the Owner;
 - d. the partners, where the Owner is or at 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, as amended, shall be included in the notification; or
 - e. the name of the corporation where the Owner 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, as amended, shall be included in the notification.
- (2) No portion of this Site shall be transferred or encumbered prior to or after closing of the Site unless the Director is notified in advance. In the event of any change in ownership of the Site, other than change to a successor municipality, the Owner shall notify the successor of and provide the successor with a copy of this Approval, and the Owner shall provide a copy of the notification to the District Manager and the Director.

1.8 Inspections by the Ministry

- (1) No person shall hinder or obstruct a Provincial Officer from carrying out any and all inspections authorized by the *OWRA*, the *EPA*, the *PA*, the *SDWA* or the *NMA* of any place to which this Approval relates, and without limiting the foregoing:

- a. to enter upon the premises where the approved processing is undertaken, or the location where the records required by the conditions of this Approval are kept;
- b. to have access to, inspect, and copy any records required to be kept by the conditions of this Approval;
- c. to inspect the Site, related Equipment and appurtenances;
- d. to inspect the practices, procedures, or operations required by the conditions of this Approval;
- e. to conduct interviews with staff, contractors, agents and assignees of the Owner; and
- f. to sample and monitor for the purposes of assessing compliance with the terms and conditions of this Approval or the *EPA*, the *OWRA*, the *PA*, the *SDWA* or the *NMA*.

1.9 Information and Record Retention

- (1) Any information requested by the Ministry, concerning the operation of the Site and its operation under this Approval, including but not limited to any records required to be kept by this Approval shall, upon request, be provided to the Ministry in a timely manner and in a format specified by the Ministry. All records shall be retained for five (5) years except as otherwise authorized in writing by the Director.
- (2) The receipt of any information by the Ministry or the failure of the Ministry to prosecute any person or to require any person to take any action, under this Approval or under any statute, regulation or other legal requirement, in relation to the information, shall not be construed as:
 - a. an approval, waiver, or justification by the Ministry of any act or omission of any person that contravenes any term or condition of this Approval or any statute, regulation or other legal requirement; or
 - b. acceptance by the Ministry of the information's completeness or accuracy.
- (3) The Owner shall ensure that a copy of this Approval, in its entirety and including all its Notices of Amendment, and the documentation listed in Schedule "A", are retained at the Owner's office at all times.

1.10 Financial Assurance

- (1) The Owner shall maintain the Financial Assurance, as defined in Section 131 of the *EPA* in the amount of CAN \$357,760.00. This Financial Assurance shall be in a form acceptable to the Director and shall provide sufficient funds for the transportation, Site clean-up and disposal of all approved quantities of waste on the Site at any one time.
- (2) Prior to January 31, 2026 or sixty (60) days prior to the first receipt of Organic Waste at the Site,

whichever comes first, the Owner shall submit to the Director, the Financial Assurance, as defined in Section 131 of the EPA in the amount of CAN \$306,450.07 for a total Financial Assurance amount of CAN \$664,210.07. This Financial Assurance shall be in a form acceptable to the Director and shall provide sufficient funds for the transportation, Site clean-up and disposal of all approved quantities of waste during the essential development of the Site, at any one time.

- (3) Commencing on January 31, 2031 and at intervals of five (5) years thereafter, the Owner shall submit to the Director, a re-evaluation of the amount of Financial Assurance to implement the actions required under Condition 1.10.(1) through 1.10.(2). The re-evaluation shall include an assessment based on any new information relating to the environmental conditions of the Site and shall include the costs of additional monitoring and/or implementation of contingency plans required by the Director upon review of the closure plan and annual reports. The Financial Assurance must be submitted to the Director within thirty (30) calendar days of written acceptance of the re-evaluation by the Director.
- (4) The amount of Financial Assurance is subject to review at any time by the Director and may be amended at his/her discretion. If any Financial Assurance is scheduled to expire or notice is received, indicating Financial Assurance will not be renewed, and satisfactory methods have not been made to replace the Financial Assurance at least sixty (60) days before the Financial Assurance terminates, the Financial Assurance shall forthwith be replaced by cash.

1.11 Certificate of Requirement

- (1) Prior to dealing with the property in any way, the Owner shall provide a copy of this Approval and any amendments, to any person who will acquire an interest in the property as a result of the dealing.
- (2) Within ninety (90) calendar days from the date of issuance of this Approval, the Owner shall submit to the Director a completed Certificate of Requirement which shall include:
 - a. a plan of survey prepared, signed and sealed by an Ontario Land Surveyor, which shows the area of the Site where waste has been or is to be deposited at the Site;
 - b. proof of ownership of the Site;
 - c. a letter signed by a member of the Law Society of Upper Canada or other qualified legal practitioner acceptable to the Director, verifying the legal description provided in the Certificate of Requirement; and
 - d. the legal abstract of the property; and any supporting documents including a registerable description of the Site.
- (3) Within thirty (30) calendar days of receiving a Certificate of Requirement authorized by the Director, the Owner shall:
 - a. register the Certificate of Requirement in the appropriate Land Registry Office on the title to the property; and

- b. submit to the Director written verification that the Certificate of Requirement has been registered on title.

2.0 SIGNS & SITE SECURITY

2.1 Signs

- (1) The Owner shall ensure that a sign is posted at the entrance to the Site, readable from the nearest public roadway bordering the Site. The following information shall be included on the sign:
 - a. name of the Owner;
 - b. this Approval number;
 - c. normal hours of operation;
 - d. Owner's telephone number to which complaints may be directed;
 - e. Ministry's telephone numbers to which complaints may be directed;
 - f. Owner's twenty-four hour emergency telephone number (if different from above);
 - g. a warning against unauthorized access; and
 - h. a warning against dumping at the Site.
- (2) The Owner shall install and maintain appropriate and visible signs at the Site to direct vehicles to the Organic Waste receiving areas and the Digestate and the Residual Waste removal areas.
- (3) The Owner shall post appropriate and visible signs along the traffic route providing clear directions to the Site and to all Organic Waste drop-off areas clearly identifying the acceptable Waste types and other appropriate instructions.

2.2 Site Security

- (1) The Owner shall ensure that all waste processing, loading, unloading and transfer to or from vehicles or containers at the Site are supervised at all times by Trained Personnel.
- (2) The Owner shall ensure the Site is operated in a safe and secure manner, and that all waste is properly handled, contained or stored so as not to pose any threat to the general public and the Site personnel.
- (3) The Owner shall ensure that access to the Site is regulated and that the Site is secured to restrict access only to authorized personnel.
- (4) The Owner shall ensure that all Site entrances and buildings are gated and locked to restrict access only to authorized personnel when the Site is not open.

3.0 SERVICE AREA, APPROVED WASTE TYPES and RATES

3.1 Service Area and Approved Waste Types

- (1) The Owner may only accept Organic Waste from the Province of Ontario and States of New York, Michigan and Ohio limited the following:
- a. Organic Waste from industrial, commercial and institutional sources, including the following sources:
 - i. bakeries
 - ii. confectionary processing facilities
 - iii. dairies and facilities that process dairy products
 - iv. fruit and vegetable processing facilities
 - v. cereal and grain processing facilities
 - vi. oil seed processing facilities
 - vii. snack food processing facilities
 - viii. snack food manufacturing facilities
 - ix. breweries and distillers grain
 - x. wineries
 - xi. beverage manufacturing facilities
 - xii. food processing facilities
 - xiii. grocery stores
 - xiv. food distribution companies
 - xv. milling facilities
 - xvi. fruit and vegetable packing facilities; and
 - xvii. any other source allowed in writing by the District Manager;
 - b. Agricultural Residues limited to corn stover, or any other material allowed in writing by the District Manager;
 - c. manure;
 - d. SSO from the curbside collection programs in the Province of Ontario.
- (2) The Owner shall not accept at the Site,
- a. any waste that is classified as hazardous waste in accordance with *Reg. 347*;
 - b. any waste that is classified as "Specified Risk Materials" as defined by the *Canadian Food Inspection Agency Feed Act*, 1993, as amended;
 - c. any biosolids from the municipal wastewater treatment plants;
 - d. any untreated septage as defined in *O. Reg. 267/03* or hauled sewage as defined in *Reg. 347*;
 - e. poultry manure; and
 - f. any SSO from the curbside collection programs collecting waste originating from areas outside of the Province of Ontario.

3.2 Waste Receipt Rates

- (1) The Owner is approved to receive the Organic Waste in quantities that are not to exceed:
 - a. an average of 200 tonnes of Organic Waste daily (based on the preceding 365 days of operation); and
 - b. a maximum of 73,000 tonnes of Organic Waste annually.

4.0. SITE OPERATIONS

4.1 Operating Hours

- (1) The Owner shall ensure that the Organic Waste is received at the Site and waste and Digestate are removed from the Site only between the hours of 6:00 a.m. to 10:00 p.m. Monday through Friday and Saturday between the hours of 7:00 a.m. to 4:00 p.m.
- (2) The Owner is approved to undertake waste management activities at the Site twenty-four (24) hours per day, seven (7) days per week.

4.2 Incoming Organic Waste Receipt

- (1) The Owner shall inspect all incoming Organic Waste loads and the accompanying waste characterization documentation to ensure that only waste that is approved under this Approval is received at the Site.
- (2) The incoming Organic Waste that has not been characterized in accordance with this Approval or that is not accompanied by the required documentation shall not be accepted at the Site and shall immediately be directed off-Site.
- (3) The Owner shall establish and implement a waste screening and tracking system for all Organic Waste received, processed, stored at and transferred from the Site.
- (4) Upon arriving at the Site, the Organic Waste shall be forthwith unloaded within the confines of the Organics Receiving Building.

4.3 Rejected Waste Handling

- (1) In the event that Organic Waste that does not meet the quality criteria from this Approval is inadvertently accepted at the Site, the Owner shall ensure that all Rejected Waste:
 - a. is handled and removed from the Site in accordance with *Reg. 347* and the *EPA*;
 - b. is stored within the confines of the Organics Receiving Building, away from all other waste and materials; and
 - c. is removed from the Site within forty eight (48) hours of its receipt or as acceptable to the

District Manager.

- (2) In the event that an Organic Waste load is refused or unacceptable waste is inadvertently accepted at the Site, a record shall be made in the daily log book or in an electronic file of the reason why the waste was refused and of the origin of the waste.
- (3) District Manager shall be notified in writing of the receipt of unacceptable loads within three (3) business days.
- (4) The following information shall be included in the notification to the District Manager:
 - a. quantity and type of waste refused;
 - b. source of the waste;
 - c. final destination of the rejected waste, if known; and
 - d. time and date of receipt and time and date of removal from the Site.

4.4 Storage

- (1) The Owner is approved to store the following maximum amounts of waste at the Site:
 - a. No more than 400 tonnes of Organic Waste shall be stored at the Site within the Tipping Floor located within the Organics Receiving Building, at any one time.
 - b. No more than 140 tonnes of Organic Waste shall be stored at the Site within the Solids Separation Bunker located within the Organics Receiving Building, at any one time.
 - c. No more than 140 tonnes of Organic Waste shall be stored at the Site within the Rejects Bunker located within the Organics Receiving Building, at any one time.
 - d. No more than 1 m^3 of the Organic Waste shall be stored at the Site within each of the three (3) Surge Tanks, located within the Organics Receiving Building, at any one time.
 - e. No more than 120 m^3 of the Organic Waste shall be stored at the Site within each of the four (4) Slurry Tanks, located within the Organics Receiving Building, at any one time.
 - f. No more than 10 m^3 of the Organic Waste shall be stored at the Site within the Nurse Tank, located within the Organics Receiving Building, at any one time.
 - g. No more than 10 m^3 of the Organic Waste shall be stored at the Site within the Grit Tank, located within the Organics Receiving Building, at any one time.

- h. No more than 1,500 m³ of the Organic Waste being processed shall be contained within each of the two (2) Hydrolysis Tanks located outdoors, at any one time.
 - i. No more than 330 m³ of the Organic Waste being processed shall be contained within each of the two (2) Pasteurizers located outdoors, at any one time.
 - j. No more than 3,500 m³ of the Organic Waste being processed shall be contained within each of the three (3) Anaerobic Digesters located outdoors, at any one time.
 - k. No more than 2,000 m³ of the Digestate shall be stored within the Digestate Storage Tank located outdoors, at any one time.
 - l. No more than 40 m³ of the process water from the wastewater treatment plant shall be stored within the Process Water Storage Tank, located within the Organics Receiving Building, at any one time.
- (2) The Organic Waste stored in the Tipping Floor shall be processed within twenty four (24) hours from the time of its receipt.
 - (3) The Owner shall ensure that sufficient storage capacity, as approved in this Approval, is available in the Organic Waste storage areas (the Tipping Floor, the Rejects Bunker, the Slurry Tanks and the Surge Tanks) prior to unloading of the Organic Waste from its transport vehicles.
 - (4) The Owner shall ensure that the levels in the liquid Organic Waste storage and the processing tanks are monitored and controlled on a continuous basis and that the high level alarms are operational at all times.
 - (5) The Tipping Floor shall be located indoors and be constructed above grade while the Slurry Tanks and the Surge Tanks shall be located indoors and be constructed partially below grade.
 - (6) The Digestate Storage Tank shall be located outdoors, be constructed partially above grade, be covered and be vented to the Biogas Cleaning and Upgrading System and/or the flare.
 - (7) Storage of solid Residual Waste at the Site is subject to the following limitations:
 - a. no more than 140 tonnes of solid Residual Waste, limited to the Residual Waste resulting from the Organic Waste processing at the Site, shall be stored at the Site at any one time;
 - b. solid Residual Waste limited to the Residual Waste resulting from the Organic Waste processing at the Site shall be stored in the Rejects Bunker, located within the confines of the Organics Receiving Building.
 - (8) The Clean-Out Material shall not be stored at the Site and will be characterized and directly

transferred off-Site in accordance with this Approval.

- (9) Solid putrescible waste generated through activities not relating to the handling and processing of the Organic Waste (i.e., office, lunch room, etc.) shall be handled in a manner that does not create an adverse effect and in accordance with the requirements of *Reg. 347*.
- (10) No outside waste storage is approved under this Approval.
- (11) No storage of the Organic Waste in its transportation vehicle is approved under this Approval.
- (12) In the event that Organic Waste cannot be processed at the Site and the Site is at its approved waste storage capacity, the Owner shall cease accepting additional Organic Waste. Receipt of additional Organic Waste may be resumed once such receipt complies with the waste storage limits approved in this Approval.

4.5 Approved Processing

- (1) The following Organic Waste management/processing activities are approved under this Approval:
 - a. receipt via a cam-lock or a hatch and temporary storage of the Organic Waste in the Slurry Tanks located within the Organics Receiving Building;
 - b. receipt of packaged Organic Waste in the Tipping Floor located within the Organics Receiving Building and the following pre-processing as proposed in the supporting documentation listed in the attached Schedule "A":
 - i. de-packaging of the packaged Organic Waste in separation equipment (such as Scott T-42 shredder, or equivalent);
 - ii. transfer of the de-packaged Organic Waste to one of the four (4) Slurry Tanks;
 - c. addition of process water and recycled digestate into the Organic Waste processing to generate a pumpable slurry;
 - d. transfer to a grit/plastic separator (such as Twist Separator or equivalent) for further separation of the organic from the in-organic constituents of the Organic Waste;
 - e. transfer of the solid non-organic residues to the Rejects Bunker for temporary storage prior to shipping to a Ministry-approved waste disposal site for final disposal or further processing;
 - f. transfer of the liquid Organic Waste to the Hydrolysis Tanks and the temporary storage of the Biogas within the Hydrolysis Tank's double membrane;

- g. transfer of the Organic Waste to the Anaerobic Digesters for anaerobic digestion;
- h. anaerobic digestion of the Organic Waste in the Anaerobic Digesters and the temporary storage of the Biogas within the Anaerobic Digester's double membrane;
- i. transfer of the Organic Waste to the Pasteurizers and the temporary storage of the Biogas within the Pasteurizer's double membrane;
- j. temporary storage of the Digestate in the Digestate Storage Tank and the temporary storage of the Biogas within the Digestate Storage Tank's double membrane;
- k. Biogas upgrade in the Biogas Cleaning and Upgrading System;
- l. emergency flaring of the Biogas; and
- m. use of emergency pressure relief valves.

- (2) The Owner shall ensure that the incoming Organic Waste received at the Site, and handled in accordance with this Approval, is used as a feedstock in the on-Site Anaerobic Digester.
- (3) The Owner shall ensure that all windows and doors of the Organics Receiving Building are closed at all times, except when the doors are used for necessary personnel or vehicle entrance and exit.

4.6 Hydrolysis

- (1) The Hydrolysis Tanks shall be heated, insulated, mixed and covered with a double membrane cover with a maximum permeability of $<400 \text{ cm}^3/\text{m}^2 \cdot \text{bar} \cdot \text{d}$ as proposed in the supporting documentation listed in the attached Schedule "A".
- (2) The Hydrolysis Tanks shall be located outdoors and be constructed partially above grade.
- (3) The Owner shall operate the Hydrolysis Tanks at a target temperature of 40°C as set out in the supporting documentation listed in the attached Schedule "A".
- (4) The Owner shall monitor the temperature in the Hydrolysis Tanks to verify compliance with Condition 4.6(3) and to confirm that the processing conditions are appropriate for hydrolysis and in accordance with the principles as determined by the anaerobic digestion industry.
- (5) The minimum hydraulic retention time of the Organic Waste in the Hydrolysis Tanks shall be 5 days, as proposed in the supporting documentation listed in the attached Schedule "A", at all times.
- (6) The Owner shall track the hydraulic retention time in the Hydrolysis Tanks to verify compliance with Condition 4.6(5) and to confirm that the processing conditions are appropriate for hydrolysis

and in accordance with the principles as determined by the anaerobic digestion industry.

- (7) A provision for an auditory alarm at the Site and a remote alarm to the dedicated Trained Personnel, when the target hydrolysis temperature and/or liquid level is not being achieved, shall be provided and be in place prior to the first receipt of the Organic Waste at the Site.
- (8) Should the hydrolysis temperature and/or liquid level monitoring show an excursion from the required setpoint, an auditory alarm at the Site and a remote alarm to the dedicated Trained Personnel shall be triggered.
- (9) The Owner shall electronically monitor the over/under pressure relief valves on the Hydrolysis Tanks, to ensure that if they are open, it is recorded and the Owner is notified. Should any unintentional raw (untreated) Biogas be released from the over/under pressure relief valves to the atmosphere, regardless of quantity, the Owner shall immediately notify the Ministry, in writing.
- (10) The Owner shall ensure that head space of the hydrolyzers, anaerobic digesters, pasteurizers and digestate storage tanks is treated through the Biogas Cleaning and Upgrading System, as proposed in the supporting documentation listed in Schedule "A" and approved in this Approval.
- (11) The Owner shall ensure that the air space between the double membrane roof for the hydrolyzers, anaerobic digesters, pasteurizers and digestate storage tanks is treated through the biofilter prior to being released to the atmosphere, as proposed in the supporting documentation listed in Schedule "A" and approved in this Approval.

4.7 Anaerobic Digestion

- (1) No more than 3,500 m³ of the Organic Waste from the Hydrolysis Tanks shall be contained and processed within each of the three (3) Anaerobic Digesters located at the Site, at any one time.
- (2) The Anaerobic Digesters shall be located outdoors, be constructed partially above grade, as proposed in the supporting documentation listed in the attached Schedule "A".
- (3) The Anaerobic Digesters shall be mechanically mixed, insulated, heated and covered with a double membrane cover with a maximum permeability of <400 cm³/m².bar.d., as proposed in the supporting documentation listed in the attached Schedule "A".
- (4) The treatment of the Organic Waste in the Anaerobic Digesters shall be carried out in the mesophilic temperature range, with the minimum operating temperature of 35°C, as proposed in the supporting documentation listed in the attached Schedule "A", at all times.
- (5) The minimum hydraulic retention time of the Organic Waste in the Anaerobic Digesters shall be 20 days as proposed in the supporting documentation listed in the attached Schedule "A", at all times.
- (6) The liquid level, temperature and duration of the processing in the Anaerobic Digesters shall be

monitored to verify compliance with Conditions 4.7(4) and (5).

- (7) Ferric compound addition and/or oxygen injection into the Anaerobic Digesters for the purpose of hydrogen sulphide removal shall be carried out in accordance with the supporting documentation listed in the attached Schedule "A".
- (8) The Owner shall electronically monitor the over/under pressure relief valves on the Anaerobic Digesters, to ensure that if they are open, it is recorded and the Owner is notified. Should any unintentional raw (untreated) Biogas be released from the over/under pressure relief valves to the atmosphere, regardless of quantity, the Owner shall immediately notify the Ministry, in writing.
- (9) The Owner shall ensure that head space of the hydrolyzers, anaerobic digesters, pasteurizers and digestate storage tanks is treated through the Biogas Cleaning and Upgrading System, as proposed in the supporting documentation listed in Schedule "A" and approved in this Approval.
- (10) The Owner shall ensure that the air space between the double membrane roof for the hydrolyzers, anaerobic digesters, pasteurizers and digestate storage tanks is treated through the biofilter prior to being released to the atmosphere, as proposed in the supporting documentation listed in Schedule "A" and approved in this Approval.

4.8 Pasteurization

- (1) No more than 330 m³ of liquid Organic Waste shall be contained within each one of the two (2) Pasteurization Tanks at the Site.
- (2) The two (2) Pasteurization Tanks shall be operated in parallel.
- (3) The Pasteurization Tanks shall be insulated, heated, mixed and covered with a double membrane cover with a maximum permeability of <400 cm³/m².bar.d as proposed in the supporting documentation listed in the attached Schedule "A".
- (4) The Pasteurization Tanks shall be located outdoors and be constructed partially above grade.
- (5) All Organic Waste shall be pasteurized in the Pasteurization Tanks.
- (6) The Owner shall ensure that pasteurization in the Pasteurization Tanks is undertaken at a minimum temperature of 50 degrees Celsius (°C) for a minimum of twenty (20) hours to ensure complete inactivation of pathogens in the incoming Organic Waste as set out in the supporting documentation listed in the attached Schedule "A".
- (7) The temperature of the processing in the Pasteurization Tanks shall be monitored to verify compliance with Condition 4.8(6).
- (8) A provision for an auditory alarm at the Site and a remote alarm to the dedicated Trained Personnel, when required pasteurization temperature and/or liquid level is not being achieved,

shall be provided and be in place prior to the first receipt of the Organic Waste at the Site.

- (9) Should the pasteurization temperature and/or liquid level monitoring show an excursion from the required setpoint, an auditory alarm at the Site and a remote alarm to the dedicated Trained Personnel shall be triggered.
- (10) The Owner shall electronically monitor the over/under pressure relief valves on the Pasteurization Tanks, to ensure that if they are open, it is recorded and the Owner is notified. Should any unintentional raw (untreated) Biogas be released from the over/under pressure relief valves to the atmosphere, regardless of quantity, the Owner shall immediately notify the Ministry, in writing.
- (11) The Owner shall ensure that head space of the hydrolyzers, anaerobic digesters, pasteurizers and digestate storage tanks is treated through the Biogas Cleaning and Upgrading System, as proposed in the supporting documentation listed in Schedule "A" and approved in this Approval.
- (12) The Owner shall ensure that the air space between the double membrane roof for the hydrolyzers, anaerobic digesters, pasteurizers and digestate storage tanks is treated through the biofilter prior to being released to the atmosphere, as proposed in the supporting documentation listed in Schedule "A" and approved in this Approval.

4.9 Biogas Management

- (1) Biogas shall be treated as follows in the Biogas Cleaning and Upgrading System:
 - a. removal of hydrogen sulphide using concentrated oxygen injection and activated carbon filters;
 - b. removal of VOCs and siloxanes using thermal swing adsorption and activated carbon systems;
 - c. compression, chilling, and moisture removal;
 - d. upgrade to renewable natural gas in a 3-stage membrane system by removing carbon dioxide from methane; and
 - e. compression of the produced Renewable Natural Gas to pipeline pressure.
- (2) The Owner shall maintain the Biogas flare system as a fully functional stand-by system, so that in the instance of a process upset and/or when the Biogas Cleaning and Upgrading System is inoperable or producing Renewable Natural Gas that is out of compliance with the required quality criteria, the flare may be utilized to combust the Biogas.
- (3) Treated Biogas which does not meet the required Renewable Natural Gas quality criteria shall be transferred to the flare for flaring.

4.10 Digestate Handling

- (1) The Owner shall ensure that the Digestate temporary storage at the Site prior to its transfer off-Site is within the Digestate Storage Tank for liquid Digestate and within the Solid Separation Bunker within the Organics Receiving Building for solid Digestate as approved in this Approval.
- (2) The Digestate Storage Tank shall be sealed as set out in the supporting documentation listed in the attached Schedule "A", at all times.
- (3) Digestate shall be loaded into the transfer vehicles within the confines of the Organics Receiving Building.
- (4) Any spills or drips of the Digestate shall be promptly cleaned up before the transfer vehicle leaves the loading area.

4.11 Residual Waste Handling

- (1) All Residual Waste removed from the Site for final disposal shall only be disposed of at a site for which a Provisional Environmental Compliance Approval has been issued by the Ministry and the site is approved to receive this type and quantity of waste.
- (2) The Residual Waste shall be stored in the Rejects Bunker located within the confines of the Organics Receiving Building.
- (3) The Owner shall remove the Residual Waste from the Site daily excluding Sunday or as directed by the District Manager.
- (4) The Owner shall ensure that the Residual Waste is covered when removed from the Organics Receiving Building and during transport to its final disposal site.

4.12 Wastewater Management

- (1) The Owner shall ensure that all wastewater, including the run-off from truck washing, generated within and/or accepted by the Organics Receiving Building is:
 - a. contained within the Organics Receiving Building;
 - b. collected in the sufficiently designed wastewater storage; and
 - c. either utilized in the process or disposed of at a Ministry-approved site.
- (2) The Owner shall regularly empty, clean and disinfect if necessary, all sumps or wastewater storage/holding areas that are used to contain and collect the wastewater generated within and/or accepted by the Organics Receiving Building.

- (3) The condensate from the Biogas treatment shall be collected and added to the Hydrolysis Tanks or be discharged to the municipal sewer.

4.13 Spill Containment

- (1) The Slurry Tanks, the Surge Tanks, the Process Water Tank, the Pasteurizer Tanks, the Hydrolysis Tanks, the Anaerobic Digesters and the Digestate Storage Tank shall be located within the spill containment designed in accordance with the conceptual design proposed in the supporting documentation listed in the attached Schedule "A".

5.0 EQUIPMENT and SITE INSPECTIONS and MAINTENANCE

5.1 Inspections

- (1) Thirty (30) days prior to the first receipt of Organic Waste at the Site or as acceptable to the District Manager, the Owner shall prepare a comprehensive written inspection program which includes procedures for inspections of all aspects of the Site's operations including the following:
 - a. Organic Waste, Digestate and any other waste loading/unloading/storage/handling areas;
 - b. condition of all major pieces of the Equipment;
 - c. condition of all instruments for monitoring required under this Approval;
 - d. security fence and property line;
 - e. presence of excessive fugitive dust emissions from the operation of the Site;
 - f. presence of the on and off-Site litter; and
 - g. presence of off-Site odours.
- (2) The inspection program shall be up-dated, as required, shall be retained at the Site and be made available for inspection by a Provincial Officer, upon request.
- (3) The inspections required in Condition 5.1(1) shall be undertaken daily by the Trained Personnel in accordance with the inspection program to ensure that all Equipment and facilities at the Site are maintained in good working order at all times and that no off-Site impacts are occurring. Any deficiencies detected during these regular inspections must be promptly corrected.

5.2 Spare Parts

- (1) The Owner shall prepare a list of critical spare parts and update this list annually or more frequently, if necessary, to ensure that this list is maintained up-to-date. The list shall be retained at the Site and be made available for inspection by a Provincial Officer, upon request.
- (2) The Owner shall ensure that the critical spare parts are available at the Site at all times or be immediately available from an off-Site supplier.

5.3 Maintenance

- (1) The Owner shall develop and implement a preventative maintenance program for all on-Site equipment associated with the processing and managing of wastes and control of fugitive odour and dust emissions.
- (2) The preventative maintenance program referred to in Condition 5.3(1) shall be maintained up-to-date, be retained at the Site and be available for inspection by a Provincial Officer, upon request.

5.4 Equipment Operation and Maintenance (Air)

- (1) The Owner shall ensure that the Equipment is properly operated and maintained at all times. The Owner shall:
 - a. prepare, prior to receipt of any waste at the Facility, review annually, and update, as necessary, a Manual (hardcopy and electronic format) outlining the operating procedures and a maintenance program for the Equipment, including:
 - i. routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
 - ii. emergency procedures, including spill clean-up procedures;
 - iii. procedures for any record keeping activities relating to the operation and maintenance of the Equipment;
 - iv. procedures for monitoring the negative pressure ventilation in the fully enclosed Organics Receiving Building as required in this Approval;
 - v. procedures for monitoring the performance of the Biofilter and Combined Heat and Power Cogeneration Units;
 - vi. the frequency of the inspection and replacement of the Biofilter;

- vii. the frequency of the inspection and replacement of the media in the Biofilter; and
- viii. all appropriate measures to minimize noise and odourous emissions from all potential sources at the Facility;

b. implement the recommendations of the Manual.

6.0 WASTE QUALITY CRITERIA and AIR/NOISE REQUIREMENTS

- (1) For the purpose of demonstrating compliance with the quality criteria set out in Condition 6.0, the Owner shall use the most recent results of the required analysis or the most recent published data.

6.1 Incoming Organic Waste Quality Criteria

- (1) The Owner shall ensure that the incoming Organic Waste from each source, prior to pre-processing or after pre-processing if contamination needs to be removed at the Site, complies with the metal content limits for the Off-Farm Anaerobic Digestion Materials set out in O. Regulation 276/03 for solids or with the maximum metal concentrations set out in column 2 of Table 1 of Schedule 5 of O. Reg. 267/03 for liquids.
- (2) The incoming Organic Waste shall not be accepted at the Site if the analytical requirements listed in this Approval have not been fulfilled or if the analysis of the said Organic Waste as described in this Approval determines that the metal content in the said Organic Waste exceeds the metal content limits set out in Condition 6.1(1).

6.2 Digestate Quality Criteria

- (1) If the Digestate is managed as a Fertilizer or a NASM destined for land application on agricultural land, the Digestate shall comply with the following requirements unless O. Reg. 267/03 requires otherwise for a NASM:
 - a. regulated metals shall not exceed the maximum concentrations set out in Table a. 1 or Table 2, as applicable, of Schedule 5 of O. Reg. 267/03;
 - b. pathogens shall not exceed the maximum pathogen levels set out in Table 2 of Schedule 6 of O. Reg. 267/03 for CP1 NASM, Table 3 of Schedule 6 of O. Reg. 267/03 for CP2 NASM or Table 5 of "Trade Memorandum T-4-93 - Safety standards for fertilizers and supplements" for Fertilizer, as applicable;
 - c. Foreign Matter shall not exceed 2% calculated on a dry basis;
 - d. plastics shall not exceed 0.5% calculated on a dry basis; and
 - e. there shall not be any particles of any material that will not pass through a screen whose

largest opening has an area of 2.5 cm².

- (2) The Digestate destined for land application on agricultural land as a NASM, shall contain a minimum of 15% of total organic matter/weight of the solids.
- (3) If the Digestate is managed as a waste destined for land application on non-agricultural land, the Digestate shall meet the quality criteria required by the conditions of the environmental compliance approval for the site where it is to be land-applied and as required by the receiving site owner.

6.3 Residual Waste Quality Criteria

- (1) Any Residual Waste, including the Clean-Out Material that is managed as a Residual Waste, to be transferred for further processing or Final Disposal shall meet the quality criteria required by the conditions of the environmental compliance approval for the site where it is to be transferred to and as required by the receiving site owner.

6.4 Renewable Natural Gas Quality Criteria

- (1) Renewable Natural Gas shall comply with the applicable criteria required by the owner/operator of the natural gas distribution infrastructure for its intended injection into the said natural gas distribution infrastructure.

6.5 Noise Performance Requirements

- (1) The Owner shall, at all times, ensure that the noise emissions from the Facility comply with the limits set out in Ministry Publication NPC-300.

6.6 Odour Performance Requirements

- (1) The Owner 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 "B", resulting from the operation of the Facility, shall not be greater than 1.0 odour unit under all atmospheric conditions.

6.7 Odour Control Measures

- (1) The Owner shall take measures to minimize odourous emissions from all potential sources at the Facility.
- (2) The Owner shall ensure that:
 - a. the fully enclosed Organics Receiving Building is designed and constructed such that the potential for air leakages from the Organics Receiving Building is minimised;

- b. the fully enclosed Organics Receiving Building is maintained at a negative pressure environment, such that all potentially odourous air is collected and treated using the fully functional Biofilter;
- c. all aspects of solid Organic Waste receiving and processing are undertaken in the fully enclosed Organics Receiving Building, as approved in this Approval;
- d. all Organic Waste delivered to the Site and any Digestate, Rejected Waste and Residual Waste removed from the Facility are in covered/enclosed vehicles;
- e. the Organic Waste is processed in the approximate order of receipt;
- f. all doors in the fully enclosed Organics Receiving Building are kept closed at all times, except during shipping and/or receiving, and for operational/maintenance access;
- g. the four (4) bay doors in the fully enclosed Organics Receiving Building are fast acting doors design;
- h. the four (4) bay doors in the fully enclosed Organics Receiving Building are fitted with air curtains to minimize the escape of odourous emissions when the door is opened;
- i. only one of the four (4) bay doors is open at anytime;
- j. the fully enclosed Organics Receiving Building is equipped with negative pressure differential sensor(s) at a location(s) appropriate to avoid atmospheric interference;
- k. the opening and closing of the four (4) bay doors, the negative pressure differential sensor(s) and the ventilation systems are interlocked, monitored and controlled through the same SCADA control system to maintain adequate negative air balance and negative air pressure within the fully enclosed Organics Receiving Building;
- l. the fan blower associated with the ventilation system in the fully enclosed Organics Receiving Building is equipped with an alarm for loss of suction, which is integrated to the SCADA system to indicate system failure and prompt the four (4) bay doors to remain in closed position;
- m. the fully enclosed Organics Receiving Building is maintained, at all times, under adequate negative pressure (rolling arithmetic average over 30 minute period) as compared to the ambient atmospheric pressure, excluding any time periods of Malfunction;
- n. the negative pressure and negative air balance for the enclosed Organics Receiving Building are monitored and recorded every five minutes (rolling arithmetic average over 30 minute period), utilizing negative pressure and negative air balance data every second;

- o. no poultry manure is received and processed at the Site;
- p. all truck loading of the Digestate is undertaken via cam-lock connection or top loading within the fully enclosed Organics Receiving Building;
- q. If at any time, the Owner cannot maintain adequate negative pressure as compared to the ambient atmospheric pressure (rolling arithmetic average over 30 minute period) and/or negative air balance (rolling arithmetic average over 30 minute period) within the fully enclosed Organics Receiving Building, then the Owner shall:
 - i. ensure that critical alarms are generated and promptly communicated to the Trained Personnel so that corrective action(s) can be undertaken;
 - ii. notify the District Manager within 24 hours of losing the negative pressure as compared to the ambient atmospheric pressure (rolling arithmetic average over 30 minute period) and/or negative air balance (rolling arithmetic average over 30 minute period), or within the period as directed or agreed to in writing by the District Manager; and
 - iii. prepare, retain a copy at the Site and submit to the District Manager, a daily written report within one (1) week of losing the negative pressure (rolling arithmetic average over 30 minute period) or negative air balance (rolling arithmetic average over 30 minute period), identifying all possible causes for losing the negative pressure (rolling arithmetic average over 30 minute period) or negative air balance (rolling arithmetic average over 30 minute period), actions taken to resolve the identified cause(s) and any recommendations for remedial measures, and managerial or operational changes to reasonably avoid the recurrence of similar incidents.

6.8 Odour Management Plan

- (1) The Owner shall prepare and submit to the District Manager, not later than three (3) months prior to receipt of the Organic Waste at the Site, review annually, and update, as necessary, an Odour Management Plan outlining the following:
 - a. all aspects of operation of the Site that have a potential to release odour including fugitive odour emission sources; 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 District Manager may not accept the Odour Management Plan if the requirements of Condition 6.8(1) were not followed.

- (3) If the District Manager does not accept the Odour Management Plan, then the District Manager may require the Odour Management Plan to be revised and re-submitted prior to receipt of the Organic Waste at the Site.
- (4) The Owner shall implement the procedures/recommendations of the Odour Management Plan.

6.9 Biofilter

- (1) The Owner shall monitor and record the following operating parameters of the Biofilter and the Organics Receiving Building, through a combination of sensors, meters, physical probes or equivalent means, at frequencies as recommended by the Equipment suppliers or as determined by operational needs, except for frequencies identified in this Approval:
 - a. Biofilter:
 - i. process air flow rate through each cell (cubic metres per second),
 - ii. inlet air temperature after the pre-humidification chamber (degrees Celsius),
 - iii. inlet air relative humidity after the pre-humidification chamber (percent),
 - iv. humidifier water flow and pressure,
 - v. media temperature, at least one location in each cell (degrees Celsius),
 - vi. pressure drop across the biofilter beds in each cell (kilopascals),
 - vii. water irrigation pressure, flow and volume, at irrigation supply to each cell,
 - viii. media in each cell, minimum 3 depths in the media (moisture content, heterotrophic plate count/total microbial count (TMC), pH, ammonium ions, nitrates, phosphate and sulphur (once every three (3) months as a minimum); and
 - ix. Empty Bed Residence Time.
 - b. Organics Receiving Building:
 - i. negative pressure.
 - c. The results of monitoring these parameters shall be recorded in a log.
 - d. Critical and key performance parameters of the Biofilter and Organics Receiving Building, measured by the continuous emission monitoring, shall be continually monitored on the SCADA control system. Any parameter deviation outside of its accepted range shall immediately generate an alarm. Critical alarms shall be promptly communicated to the Trained Personnel so that corrective action(s) can be undertaken.
- (2) The Owner shall perform a quarterly review of the operational data of the Biofilter and Organics Receiving Building after its successful commissioning including an analysis of parameter trends

and their comparison to the design levels.

6.10 Combined Heat and Power Cogeneration Unit

- (1) The Owner shall ensure that the Combined Heat and Power Cogeneration Unit is designed and operated to comply, at all times during normal operating conditions, and not during start-up, with the following performance requirements:
 - a. The emission of nitrogen oxides in the gases emitted from the stack of the Combined Heat and Power Cogeneration Unit shall not be greater than the emission limit specified in Schedule "C".

6.11 Biogas Flare

- (1) The Owner shall ensure that the Biogas Flare system is designed and operated to comply, at all times, with a destruction efficiency of at least 98%.
- (2) The Owner shall maintain the Biogas Flare system, so that in the instance of a process upset and/or when the Biogas Cleaning and Upgrading System is inoperable, that the flare may be utilized to burn off-spec gases and as a fully functional stand-by system.

6.12 Ventilation Assessment Requirements

- (1) The Owner shall develop a negative pressure assessment plan, prepared by a Professional Engineer, not later than six (6) months prior to receipt of any Organic Waste at the Site, or as directed or agreed to in writing by the District Manager, for performing negative pressure assessment for the fully enclosed Organics Receiving Building and for identifying ideal methodology for achieving and monitoring negative pressure. The plan shall include as a minimum, but not limited to, the following:
 - a. drawings showing:
 - i. layout of the Site and the Facility;
 - ii. identification of enclosures, if required; and
 - iii. proposed locations for the pressure monitoring sensors for each enclosure;
 - b. details of the monitoring instruments;
 - c. identification of:
 - i. pressure monitoring sensor technology, numbers and location of negative pressure monitoring sensors within the fully enclosed Organics Receiving Building to avoid false positive readings;
 - ii. weather and other atmospheric impacts; and

- iii. ideal target negative pressure and negative air balance for the fully enclosed Organics Receiving Building, including the need to install any additional fans required to maintain the target negative pressure and negative air balance within the fully enclosed Organics Receiving Building;
 - d. impacts of the four (4) bay doors operating practices, including a recommendation on appropriate face-velocity on doors and entranceways;
 - e. air changes in the fully enclosed Organics Receiving Building with a recommendation of minimum air exchanges;
 - f. instrument calibration schedule;
 - g. data collection, logging and reporting frequency;
 - h. alarm levels and triggers;
 - i. consideration of remedial actions if an alarm is triggered;
 - j. an evaluation of the negative pressure and air balance inside the fully enclosed Organics Receiving Building;
 - k. the monitoring period duration for the negative pressure assessment for the fully enclosed Organics Receiving Building;
 - l. frequency and methodology for performing the negative pressure assessment;
 - m. smoke test;
 - n. detailed evaluation of the SCADA control system associated with negative pressure ventilation, including adequacy and accuracy;
 - o. notification requirement to the District Manager; and
 - p. reporting on the negative pressure assessment, including an analysis of the results and recommendations.
- (2) The Owner shall perform the negative pressure assessment for the fully enclosed Organics Receiving Building, not later than three (3) months prior to receipt of any waste at the Facility, or as directed or agreed to in writing by the District Manager.
- (3) The Owner shall submit a report, prepared by a Professional Engineer, on the negative pressure assessment for the fully enclosed Organics Receiving Building to the Director and the District Manager not later than two (2) months after completing the negative pressure assessment. The report shall include but not be limited to:

- a. an executive summary;
 - b. description of the building ventilation and negative pressure monitoring system;
 - c. results of the negative pressure assessment, including an indication of,
 - i. whether the ventilation system is capable of achieving and maintaining 1) at all times, adequate negative pressure (rolling arithmetic average over 30 minute period) as compared to the ambient atmospheric pressure, excluding any time periods of Malfunction, 2) at all times, adequate negative air balance (rolling arithmetic average over 30 minute period), excluding any time periods of Malfunction, 3) the appropriate face-velocity on doors and entranceways, and 4) the appropriate number of air changes per hour in the Organics Receiving Building;
 - ii. whether the negative pressure monitoring system follows ideal methodology for data collection, monitoring and reporting of the negative pressure within the Organics Receiving Building;
 - iii. whether any part of the negative pressure ventilation and monitoring system is inadequate for the purposes of odour containment within the Organics Receiving Building;
 - d. recommendations including the need to install any additional fans or ducting required to maintain the target air changes per hour, negative pressure and negative air balance within the Organics Receiving Building and to maintain the appropriate face-velocity on doors and entranceways;
- (4) The Owner shall implement the recommendations identified in the negative pressure assessment report, prior to receipt of any Organic Waste at the Site, or as directed or agreed to in writing by the District Manager.
- (5) If the District Manager is of the opinion that, the ventilation system, or part thereof, is not adequately maintaining negative pressure within the Organics Receiving Building, or the negative pressure assessment is not prepared in accordance with the negative pressure assessment plan required by this Approval, then the District Manager may require re-assessment of the ventilation system.

7.0 TESTING and MONITORING

7.1 Sampling and Testing Methods

- (1) The collection and analysis of samples of the incoming Organic Wastes and the Digestate shall be performed in accordance with the Sampling and Analysis Protocol.
- (2) Analysis of samples from of the incoming Organic Waste and the Digestate shall be performed by:
 - a. a laboratory that is accredited by the Ministry of Agriculture, Food and Rural Affairs for that purpose; or

- b. a laboratory that is accredited in accordance with the International Standard ISO/IEC 17025 - General Requirement for the Competence of Testing and Calibration Laboratories, dated December 15, 1999, as amended from time to time.

(3) The Owner shall ensure a copy of the analysis sets out the metal concentrations in:

- a. milligrams of metal per kilogram of total solids, dry weight, in case of the analysis of metals in materials that have a concentration of total solids of 10,000 milligrams or more per litre; and
- b. milligrams of metal per litre, in the case of the analysis of regulated metals in materials that have a concentration of total solids of less than 10,000 milligrams per litre.

7.2 Characterization of Incoming Organic Waste

- (1) The Owner shall ensure that prior to its first acceptance of a given new incoming Organic Waste, the incoming Organic Waste is characterized for metals during the 14-day period preceding its first-time receipt at the Site.
- (2) If the Owner relies on the published data for the well-studied/characterized incoming Organic Waste, the latest published information shall be used to confirm that the characteristics of the incoming Organic Waste to be received at the Site are in compliance with the incoming Organic Waste metals quality criteria required under this Approval.
- (3) If the published data is not available or used to confirm compliance of the incoming Organic Waste with the metal quality criteria from this Approval, the Owner shall ensure that analytical data from sampling and testing of the incoming Organic Waste is used to confirm compliance with the incoming Organic Waste metal quality criteria required under this Approval.
- (4) When sampling and testing of the incoming Organic Waste from Condition 7.2(3) is required, the Owner shall ensure that,
 - a. composite samples are collected as follows:
 - i. for liquids, at least 1 composite sample composed of no less than 5 sub-samples is collected, and
 - ii. for solids, at least 1 composite sample composed of no less than 10 sub-samples is collected;
 - b. following initial sampling and testing of the Organic Waste, subsequent sampling and metal content analysis is conducted for every 1,000 tonnes of the given Organic Waste or once a year, whichever comes first, provided the said Organic Waste is of the same type and is from the same source; and

- c. if after the first twelve (12) months of sampling and analysis the results are consistent and continuously below the prescribed limits, sampling and analysis is conducted for the given Organic Waste once a year or following any process changes, operational issues or other factors that may affect the quality of the said Organic Waste from the source.
- (5) The Owner shall ensure that each sample of the incoming Organic Waste has been analysed for metals listed in column 1 of Table 1 of Schedule 5 of O. Reg. 267/03, in accordance with the methods and sampling frequencies specified in this Approval.
 - (6) If the initial or the subsequent testing determines that the concentration of any metal in an incoming Organic Waste exceeds the maximum metal concentrations set out in Condition 6.1, the Owner shall reject the receipt of that Organic Waste.
 - (7) In order to resume accepting a given Organic Waste following previous rejection, the Owner shall ensure that the analytical requirements listed in this Approval have been fulfilled and that two (2) independent composite samples of the said Organic Waste generate analytical results which, separately and consecutively, do not exceed the metal content limits set out in Condition 6.1.
 - (8) When sampling and re-testing of the incoming Organic Waste from Condition 7.2(7) is required, the Owner shall ensure that the composite samples are collected as follows:
 - a. for liquids, at least 1 composite sample composed of no less than 5 sub-samples is collected; and
 - b. for solids, at least 1 composite sample composed of no less than 10 sub-samples is collected.
 - (9) Should results of testing of the incoming Organic Waste for metals fail to meet the quality criteria specified in this Approval, the said Organic Waste shall be handled in accordance with the Contingency and Emergency Response Plan.

7.3 Testing of Digestate - Foreign Matter, Plastics, Metals and Pathogens

- (1) If the Digestate is managed as a NASM destined for land application on agricultural land or as a Fertilizer, the Owner shall:
 - a. collect one sample per month from the outlet of each Digestate Storage Tank and analyze the samples for Foreign Matter, Plastics and regulated metals listed in Table 2 of Schedule 5 of O. Reg. 267/03.
- (2) If the Digestate is managed as a NASM destined for land application on agricultural land or managed as a Fertilizer, the Owner shall collect one (1) sample every month from the outlet of the each Digestate Storage Tank, and analyze each of the samples for:

- a. Total Solids content (%);
 - b. Faecal coliforms;
 - c. E.coli; and
 - d. Salmonella.
- (3) Notwithstanding provisions of Condition 7.3(2), upon a written request from the District Manager, the Owner shall sample and test the Digestate for pathogens including the organisms listed in Table 1 of Schedule 6 of O. Reg. 267/03.

7.4 Testing of Clean-Out Material

- (1) The Clean-out Material shall be destined for transfer to an approved waste disposal site as a Rejected Waste and the Owner shall test the Clean-Out Material as required by the environmental compliance approval for the receiving site and the receiving site owner.

7.5 Hydrolysis/Anaerobic Digestion/Pasteurization Monitoring

- (1) The liquid level and the temperature of the processing in the Hydrolysis Tank shall be continuously monitored and recorded.
- (2) The liquid level and the temperature of the processing in the Anaerobic Digester shall be continuously monitored and recorded.
- (3) The liquid level and the temperature of pasteurization in the Pasteurizer Tanks shall be continuously monitored and recorded.

7.6 Biogas/Renewable Natural Gas Monitoring

- (1) The Biogas and the Renewable Natural Gas production rate and quality shall be monitored and/or tested in accordance with the proposal set out in the supporting documentation listed in the attached Schedule "A" as required by the natural gas distribution infrastructure owner.

7.7 Source Testing Requirements

- (1) The Owner shall perform Source Testing in accordance with the procedures in Schedule "D" to determine the rate of emission of nitrogen oxides (expressed as nitrogen dioxide equivalent) from the Combined Heat and Power Cogeneration Units, six (6) months after receipt of any waste at the Site and repeated every two (2) years thereafter, or at a date and frequency as directed or agreed to in writing by the District Manager.
- (2) The Owner shall perform Source Testing in accordance with the procedures in Schedule "D" to determine the rate of emission of odour and total reduced sulphur from the Biofilter, six (6)

months after receipt of any waste at the Site and repeated annually thereafter, or at a date and frequency as directed or agreed to in writing by the District Manager.

8.0 END-USE OF OUTPUTS

8.1 End-use of Digestate

- (1) All Digestate shipped from the Site as a Fertilizer must be accompanied by a Product Label that has been approved by the CFIA
- (2) Subject to CFIA's Fertilizer registration requirements, prior to each initial shipment for each Fertilizer label, the Owner shall provide to the Director and the District Manager notification from the CFIA that the Digestate generated at the Site, has been assessed and approved for use as a Fertilizer under the *Fertilizers Act*.
- (3) In addition to the notification required by Condition 8.1(2), above, the Owner shall provide to the Director and District Manager the following information:
 - a. a copy of the complete application package submitted to the CFIA in support of the request to manufacture the Fertilizer;
 - b. the specific requirements of the CFIA that must be met for the Digestate to be considered as a Fertilizer including all process monitoring, analytical, and quality assurance / quality control requirements; and
 - c. a copy of the approved Product Label.
- (4) Following any changes to the incoming feedstock type or quality, the Owner shall obtain a new Product Label or a confirmation from the CFIA that a new Product Label is not required.
- (5) If the Digestate is not offered for sale or is not sold as a Fertilizer in accordance with the *Fertilizers Act*, but the Digestate is to be land-applied to agricultural land, the Digestate shall be managed in accordance with the requirements of O. Reg. 267/03.
- (6) If the Digestate is not offered for sale or is not sold as a Fertilizer in accordance with the *Fertilizers Act*, but is to be land-applied on agricultural land in accordance with the requirements set out under the *NMA*, upon commencement of processing of the SSO containing a Human Body Waste constituent, the Digestate resulting from the anaerobic digestion at the Site is a waste containing Human Body Waste and its transfer from the Site to a land application receiving site shall only be with a written notification to the receiving site's owner that the Digestate contains Human Body Waste so that the receiving site owner can determine the applicable regulatory requirements under O. Reg. 267/03.
- (7) If the Digestate is not managed as a Fertilizer or as a NASM, it is considered a Processed Organic Waste subject to approval requirements under section 20.2 of Part II.1 of the EPA, and it

shall be managed as follows:

- a. Digestate managed as waste shall only be in accordance with the requirements of the *EPA* and the *OWRA* and any other relevant Ministry legislation;
- b. Digestate managed as waste shall only be removed from the Site by a hauler approved by the Ministry to transport such waste, as required;
- c. Digestate managed as waste shall be transferred for further processing or final disposal to a Ministry-approved site or a site approved to accept such waste by an equivalent jurisdiction.

8.2 End-use of Biogas/Renewable Natural Gas

- (1) Treated Biogas is considered to be Renewable Natural Gas when it meets the requirements for injection into the natural gas distribution infrastructure.
- (2) Treated Biogas which does not meet the required Renewable Natural Gas quality criteria shall be re-processed or transferred for flaring.

9.0 NUISANCE IMPACT CONTROL and HOUSEKEEPING

9.1 Trucks & Traffic

- (1) The Owner shall visually inspect the vehicles that have delivered the Organic Waste to the Site for evidence of leaking or dripping waste. The Owner of the vehicles that leak shall be given a written notice of the presence of the leak. The notice shall include the vehicle owner's name, the vehicle Environmental Compliance Approval number, the type of Organic Waste delivered to the Site and the date of the delivery. A copy of the notice shall be retained at the Site and it shall be provided to the Ministry staff upon request.
- (2) The Owner shall ensure that the exterior of all vehicles delivering the Organic Waste to the Site is washed prior to their departure from the Site, as appropriate.
- (3) The Owner shall ensure that there is no queuing or parking of vehicles that are waiting to enter the Site on any roadway that is not a distinct part of the Site.
- (4) The Owner shall ensure that the vehicles transporting waste to and from the Site use the designated on-Site traffic routes.
- (5) The Owner shall ensure that all new drivers of vehicles transporting waste to and from the Site are instructed/trained on the acceptable on-Site traffic routes.
- (6) The Owner shall ensure that all vehicles hauling waste are adequately covered to prevent fugitive odour or dust emissions during transport.

- (7) All waste must be transported to and from the Site in accordance with the EPA and Reg. 347 and in vehicles that have been approved by the Ministry or registered on the EASR, as required.
- (8) The Owner shall ensure that all drivers of vehicles making deliveries and removing waste from to the Site are made aware of the protocols to manage opening and closing of the doors in the buildings at the Site.
- (9) The Owner shall determine the Site access truck traffic routes and shall ensure that all drivers of vehicles making deliveries and removing waste from to the Site are made aware of the traffic routes restrictions and requirements.

9.2 Litter

- (1) The Owner shall prevent the escape of litter from the Site and pick up litter around the Site on a daily basis, or more frequently if necessary.

9.3 Vectors & Vermin

- (1) The Owner shall:
 - a. implement necessary housekeeping procedures to eliminate sources of attraction for vermin and vectors; and
 - b. if necessary, hire a qualified, licensed pest control professional to design and implement a pest control plan for the Site.

9.4 Fugitive Emissions to the Atmosphere

- (1) The Owner shall ensure that the floor of the Organics Receiving Building is cleaned regularly, including being washed down, as required.
- (2) The Owner shall regularly clean all equipment used to handle and process the Organic Waste at the Site, as required.
- (3) The Owner shall ensure that all on-site roads and operations/yard areas are regularly swept/wetted to prevent dust impacts off-Site.
- (5) The Owner shall electronically monitor the over/under pressure relief valves on the Hydrolysis Tanks, Anaerobic Digesters, Pasteurization Tanks and Digestate Storage Tank to ensure that if they are open, it is recorded and the Owner is notified. Should any unintentional raw (untreated) biogas be released from the over/under pressure relief values to the atmosphere, regardless of quantity, and leave the Site, the Owner shall immediately notify the Ministry in accordance with the requirements in Condition 13.0.
- (6) The Owner shall maintain the biogas flare at the Site and combust off-specification biogas in the

instance of a process upset.

10.0 COMPLAINT RESPONSE PROCEDURE

- (1) A designated representative of the Owner shall be available to receive public complaints caused by the operations at the Site twenty-four (24) hours per day, seven (7) days per week.
- (2) If at any time, the Owner receives any environmental complaints from the public regarding the operation of the Site, the Owner shall respond to these complaints according to the following procedures:
 - a. Step 1: Receipt of Complaint - The Owner shall record each complaint in a computerized tracking system. The information recorded shall include the following:
 - i. the name, address and the telephone number (or contact information) of the complainant, if known;
 - ii. the date and time of the complaint; and
 - iii. details of the complaint, including the description and duration of the incident.
 - b. Step 2: Investigation of Complaint - After the complaint has been received by the Owner and recorded in the tracking system, the Owner shall, immediately notify, either the District Manager by phone during office hours or the Ministry's Spills Action Centre at 1-800-268-6060 after office hours. The Owner 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. general meteorological conditions including, but not limited to the ambient temperature, approximate wind speed and its direction, sunny versus cloudy, inversion versus clear and windy, etc. at the time of the complaint;
 - iii. location of the person who submitted the complaint, if known, at the time of the incident; and
 - iv. determination if the complaint is attributed to activities being undertaken at the Facility and if so, determination of all the possible cause(s) of the complaint;
 - c. Step 3: Corrective Action - The Owner 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 Owner shall forward a formal reply to the complainant, if known and to the District Manager within one (1) week after the receipt of the complaint. 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 would be provided.

- e. Step 5: Recording - All of the information collected and actions taken must be recorded in the tracking system.
- (3) If the District Manager deems the remedial measures taken as per Condition 10.0(2)c. to be unsuitable, insufficient or ineffective, the District Manager may direct the Owner, in writing, pursuant to the remedial order section (s.17) or the preventative measures order section (s.18) of the *EPA* to take further measures to address the noted failure, upset or malfunction, including but not limited to the following:
- a. reduction in the receipt of waste;
 - b. cessation of the receipt of the waste;
 - c. removal and off-site disposal of waste;
 - d. repairs or modifications to the Equipment or processes at the Site; and
 - e. further investigation of possible sources of fugitive air emissions from the Site.

11.0 OPERATIONS MANUAL and STAFF TRAINING

11.0 Operations Manual

- (1) Three (3) months prior to receiving Organic Waste at the Site, the Owner shall prepare and submit to the District Manager an Operations Manual for use by the Site personnel. As a minimum, the Operations Manual shall contain the following:
- a. outline the responsibilities of Site personnel;
 - b. personnel training protocols;
 - c. waste receiving and screening procedures;
 - d. waste unloading, handling, storage and processing procedures;
 - e. process monitoring procedures;
 - f. sampling and testing procedures;
 - g. Site inspections, spill, fire, upset and leakage recording procedures;
 - h. procedure for handling complaints as described in this Approval.
- (2) A copy of the Operations Manual shall be kept at the Site, must be accessible to personnel at all times and must be updated, as required.

11.2 Staff Training

- (1) All operators of the Site shall be trained with respect to the following:
 - a. relevant air, noise, wastewater and waste management legislation, regulations and guidelines;
 - b. major environmental concerns pertaining to the waste to be handled at the Site;
 - c. occupational health and safety concerns pertaining to the processes and wastes to be handled at the Site;
 - d. management procedures including the use and operation of equipment for the processes and wastes to be handled at the Site;
 - e. records keeping procedures;
 - f. contingency plan and emergency response procedures;
 - g. specific written procedures for the control of adverse effects from the Site;
 - h. specific written procedures for refusal of unacceptable incoming Organic Waste loads; and
 - i. the requirements of this Approval.
- (2) The training of the operators of the Site shall also include the procedures contained in the Operations Manual.
- (3) The training of the operators of the Site shall be undertaken:
 - a. upon commencing employment at the Site;
 - b. whenever procedures are updated.

12.0 CONTINGENCY MEASURES & EMERGENCY SITUATION RESPONSE PLAN

- (1) Prior to any processing of the Organic Waste in the Anaerobic Digesters, the Owner shall prepare a Contingency Measures and Emergency Situation Response Plan. The Contingency Measures and Emergency Situation Response Plan shall be prepared in consultation with the District Manager, the local Municipality and the Fire Department. The Contingency Measures and Emergency Situation Response Plan, as a minimum, shall include the following information:
 - a. emergency response procedures to be undertaken in the event of a spill, process upset, power failure, fire, explosion or any other emergency situation, including specific clean-up methods for wastes expected to be generated from the emergency situation;
 - b. odour abatement plan to propose the design and operation of the contingency measures necessary to alleviate impacts from odours emitted from the waste management activities at

the Site;

- c. dust abatement plan to propose the design and operation of the contingency measure to alleviate impacts from dust originating from the waste management and vehicular activities at the Site;
 - d. trigger mechanism for implementation of the abatement plans required by b. and c, above;
 - e. a list of equipment and clean up materials available for dealing with the emergency situations;
 - f. notification protocol with names and telephone numbers of persons to be contacted, including persons responsible for the Site, the Ministry's District Office and Spills Action Centre, the local Fire Department, the local Municipality, the local Medical Officer of Health, and the Ministry of Labour, and the names and telephone numbers of waste management companies available for emergency response;
 - g. procedures and actions to be taken should the incoming Organic Waste not meet the quality criteria specified by this Approval and requires removal from the Site as set out in this Approval;
 - h. procedures and actions to be taken should the outgoing Residual Waste not meet the quality criteria set out in the receiving site's Environmental Compliance Approval;
 - i. procedures and actions to be taken should the Digestate fail to meet the requirements under the NMA or the Fertilizers Act; and
 - j. procedures and actions to be taken should the occurrence of the substantiated complaints require the Owner to suspend the Organic Waste processing activities at the Site.
- (2) Prior to any processing of the Organic Waste in the Anaerobic Digesters, approval of the Contingency Measures and Emergency Situation Response Plan shall be obtained from the Fire Department and the municipality and submitted to the District Manager.
- (3) An up-to-date version of the Contingency Measures and Emergency Situation Response Plan shall be kept at the Site at all times, in a central location available to all staff, and a copy shall be submitted to the District Manager, the local Municipality and the Fire Department, if requested.
- (4) The Contingency Measures and Emergency Situation Response Plan shall be reviewed on an annual basis and updated, if necessary. The revised version of the Contingency Measures and Emergency Situation Response Plan shall be submitted to the District Manager, the local Municipality and the Fire Department for comments and concurrence.

13.0 EMERGENCY SITUATIONS RESPONSE AND REPORTING

- (1) The Owner shall immediately take all necessary measures, as outlined in the Contingency Measures and Emergency Situation Response Plan, to handle the emergency situations occurring at the Site.
- (2) The Owner shall ensure that the equipment and materials outlined in the Contingency Measures and Emergency Situation Response Plan are immediately available at the Site at all times and are in a good state of repair and fully operational.
- (3) The Owner shall ensure that all Site personnel are fully trained in the use of the equipment and materials outlined in the Contingency Measures and Emergency Situation Response Plan, and in the procedures to be employed in the event of an emergency.
- (4) All Spills shall be immediately reported to the **Ministry's Spills Action Centre at 1-800-268-6060** and shall be recorded in the log book as to the nature and cause of the Spill, and the action taken for clean-up, correction and prevention of similar future occurrences.
- (5) Should a Spill occur at the Site, in addition to fulfilling the requirements from the *EPA*, the Owner shall submit to the District Manager a written report within three (3) calendar days outlining the nature of the Spill, remedial measure taken and the measures taken to prevent future occurrences at the Site.

14.0 RECORDS KEEPING AND RETENTION

14.1 Daily Activities

- (1) The Owner shall maintain an on-site written or digital record of activities undertaken at the Site. All measurements shall be recorded in consistent metric units of measurement. The record shall include, as a minimum, the following:
 - a. date of record;
 - b. quantity and type of the Organic Waste received at the Site, including the incoming Organic Waste characterization results, or published characterization data, as applicable;
 - c. quantity and type of waste processed at the Site, including the waste inputted into the Anaerobic Digester;
 - d. quantity and type of waste present at the Site, including the Organic Waste in storage and the Organic Waste levels in the Pasteurizer Tanks, Hydrolysis Tank and the Anaerobic Digester;
 - e. amount of Digestate pumped from the Anaerobic Digester to the Digestate Storage Tank;
 - f. amount of Digestate shipped from the Site, its categorization and destination;
 - g. quantity of the Residual Waste shipped for final disposal, the name of the receiving site and

its Environmental Compliance Approval number;

- h. quantity and type of any Rejected Waste rejected from the Site;
- i. housekeeping activities, including litter collection, washing/cleaning activities, etc.
- j. date and the quantity of Biogas generated at the Site;
- k. date and the quantity of Renewable Natural Gas transferred from the Site to the natural gas distribution infrastructure, including any required characterization results;
- l. date and duration of the flare being used for Biogas flaring.

- (2) The Owner shall retain all records retaining to waste characterization required by this Approval for a minimum of five (5) years.

14.2 Emergency Situations

- (1) The Owner shall maintain an on-Site written or digital record of the emergency situations. The record shall include, as a minimum, the following:
 - a. the type of an emergency situation;
 - b. description of how the emergency situation was handled;
 - c. the type and amount of material spilled, if applicable;
 - d. a description of how the material was cleaned up and stored, if generated; and
 - e. the location and time of final disposal, if applicable.

14.3 Inspections

- (1) The Owner shall maintain an on-Site written or digital record of inspections as required by this Approval. The record shall include, as a minimum, the following:
 - a. the name and signature of person that conducted the inspection;
 - b. the date and time of the inspection;
 - c. the list of any deficiencies discovered;
 - d. the recommendations for remedial action; and

- e. the date, time and description of actions taken.

14.4 Training

- (1) The Owner shall maintain an on-Site written or digital record of training as required by this Approval. The record shall include, as a minimum, the following:
 - a. date of training;
 - b. name and signature of person who has been trained; and
 - c. description of the training provided.

14.5 Sampling & Testing Records

- (1) The Owner shall establish and maintain a written or digital record of all sampling and testing activities at the Site. This record shall include, as a minimum, the following information:
 - a. waste sampled, sample collection locations and volume collected;
 - b. day and time of collection;
 - c. sample handling procedures;
 - d. parameters tested for and the resulting concentrations;
 - e. name of the laboratory facility conducting the testing; and
 - f. conclusions drawn with respect to the results of the monitoring and testing.

14.6 Monitoring Records

- (1) The Owner shall establish and maintain a written or digital record of all monitoring activities at the Site as required by this Approval.

14.7 Complaints Response Records

- (1) The Owner shall establish and maintain a written or digital record of complaints received and the responses made as required by this Approval.

14.8 Air/Noise Records

- (1) Unless otherwise specified in this Approval, the Owner shall retain, all reports, records and information related to or resulting from the recording activities required by this Approval, and make these records available for review by staff of the Ministry upon request. The Owner shall

retain, but not limited to, the following records:

- a. all records on the maintenance, repair and inspection of Equipment;
- b. all records on the monitored activities required by this Approval;
- c. all reports on the negative pressure assessment of the Organics Receiving Building;
- d. all reports on the Source Testing required by this Approval;
- e. all measures taken to minimize odourous emissions from all potential sources at the Facility; and
- f. all records related to environmental complaints as required by this Approval.

14.9 Annual Report

- (1) By March 31st following the end of each operating year, the Owner shall prepare and submit to the District Manager an Annual Report summarizing the operation of the Site covering the previous calendar year. This Annual Report shall include, as a minimum, the following information:

Air

- a. any environmental and operational problems, that could negatively impact the environment, encountered during the operation of the Facility or during Facility inspections, and any mitigative actions taken;
- b. any recommendations to minimize environmental impacts from the operation of the Facility and to improve Facility operation and monitoring programs in this regard;
- c. a summary of any complaints received and follow up actions taken;
- d. a summary of all inspections and maintenance carried out at the Facility;

Waste

- a. a signed statement that the Site was in compliance with the Approval;
- b. a monthly summary of the quality and the quantity of all incoming Organic Waste and outgoing Digestate, Residual Waste and Rejected Waste, including analytical data required to characterize the waste;
- c. material balance for each month documenting the amount of Organic Waste present/stored and in-process at the Site;
- d. a monthly summary of the quality and the quantity of the Digestate pumped to the Digestate Storage Tank;

- e. a monthly summary of the quality and the quantity of the Digestate shipped from the Site and its end-use designation (i.e., Fertilizer or a non-exempted waste) and its final end-use destination (i.e., agricultural or non-agricultural location) and address;
- f. annual amount of Biogas produced at the Site;
- g. annual amount of Renewable Natural Gas transferred from the Site to the natural gas distribution infrastructure;
- h. annual duration of the flare being used for Biogas flaring;
- i. any environmental and operational problems, that could negatively impact the environment, encountered during the operation of the Site or during Site inspections and any mitigative actions taken;
- j. any recommendations to minimize environmental impacts from the operation of the Site and to improve Site operation and monitoring programs in this regard;
- k. a summary of any complaints received and the responses made;
- l. a summary of any emergency situations, including use of over/under pressure relief valves, that have occurred at the Site and how they were handled;
- m. an update on the amount of Financial Assurance which has been provided to the Director;
- n. a summary of all inspections and maintenance carried out at the Site; and
- o. any other information the District Manager requires from time to time.

14.10 Design and Operations Report

- (1) The Company shall maintain an up-to-date Design and Operations Report for the Site, which shall contain at a minimum the information required by the Ministry's "Guide to applying for an Environmental Compliance Approval" as it applies to the Site.
- (2) The Design and Operations Report shall be:
 - a. kept up-to-date at all times so that it accurately reflects the ongoing Site activities as approved under this Approval;
 - b. retained at the Site;
 - c. available for inspection by a Provincial Officer upon request; and
 - d. updated and submitted with all future Environmental Compliance Approval applications for

the Site, including a revisions tracking log.

- (3) Changes to the Site's operations Design and Operations Report that do not require an amendment to this Approval under Section 27 of the EPA shall be recorded in a revisions tracking log in the Design and Operations Report and submitted to the District Manager for record keeping.

15.0 CLOSURE

- (1) The Owner shall submit, for approval by the Director, a written Closure Plan four (4) months prior to the permanent closure of the Site. This plan must include, as a minimum, a description of the work that will be done to facilitate closure of the Site and a schedule for completion of that work.
- (2) Within ten (10) days after closure of the Site, the Owner must notify the Director, in writing, that the Site is closed and that the Closure Plan has been implemented.

Schedule "A"

This Schedule "A" forms part of this Environmental Compliance Approval

Supporting Documentation - Waste

1. Application for this Environmental Compliance Approval dated July 3, 2019, signed by Mark Bell, Mattawa Renewable Power Corporation, and submitted by CH Four Biogas, Inc., with attachments.
2. E-mail dated August 24, 2018 (9:22 a.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Ricki Allum, Ontario Ministry of the Environment, Conservation and Parks, revising the service area to the Province of Ontario.
3. E-mail dated October 20, 2018 (11:46 a.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the proposal, and including the following attachments entitled:
 - a. "Ref#3069-B2MPRE_Response to ECA (Waste) Questions_October 19 2018.pdf"
 - b. "Question 2_Wind Direction.pdf"
 - c. "Question 32_updated ECA Section 5.4.2.pdf"
 - d. "Question 49_EPDM Specifications.pdf"
 - e. "Question 64_Flare Information.pdf"
 - f. "Question 65_DMT Process Description.pdf"
 - g. "Question 69-74_FAC.PDF"
 - h. "Supplemental Information _Question 1.pdf"
 - i. "Supplemental Information _Question 75-80.pdf"
 - j. "Drawings_October 19 2018.pdf"
4. E-mail dated October 23, 2018 (6:55 p.m.) from Mark Bell, Mattawa Renewable Power Corporation, to Dale Gable, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the neighbour notification, and including the following attachment entitled:
 - a. "Petwawa Biofuel - MOECC adjacent landowner letters July 3 2018.docx"
5. E-mail dated January 21, 2019 (11:12 a.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the site zoning, and including the following attachments entitled:
 - a. "2019-005.pdf"
 - b. "C17-18 - Notice of Passing.pdf"
6. E-mail dated January 23, 2019 (5:36 p.m.) from Mark Bell, Mattawa Renewable Power Corporation, to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the site zoning, and including the following attachments entitled:
 - a. "Southgate ZA Bylaw.pdf"
 - b. "Southgate Council Minutes Dec19 2018.pdf"
 - c. "Southgate Agenda December 19 2018 re Petawawa.pdf"
7. E-mail dated April 17, 2019 (12:02 p.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to

Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the proposal and the financial assurance estimate calculation, and including the following attachments entitled:

- a. "Ref#3069-B2MPRE_ECA Waste_Response to Questions_April 17.pdf"
 - b. "Ref#3069-B2MPRE_ECA_Site Plan.pdf"
 - c. "Petawawa Biofuels Revised FA Letter 04152019.pdf"
8. E-mail dated June 14, 2019 (1:53 p.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the addition of pasteurization to the proposal, and including the following attachments entitled:
 - a. "17C14 - 01 - SP1 - Site Plan.n.pdf"
9. E-mail dated July 2, 2019 (2:24 p.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information the proposal, and including the following attachments entitled:
 - a. "17C14 - PF1 - Process Flow Diagram v5.pdf"
 - b. "Biogas Upgrading Process Description.pdf"
10. E-mail dated July 15, 2019 (10:18 a.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on spill containment, and including the following attachments entitled:
 - a. "17C14 - 01 - SP1 - Site Plan.p.pdf"
 - a. "17C14 - PF1 - Process Flow Diagram v6.pdf"
 - b. "17C14 - SC - Secondary Containment Plan & Section.pdf"
11. E-mail dated July 15, 2019 (10:20 a.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on spill containment, and including the following attachments entitled:
 - a. "BH Location Plan, Rev 2 - Jul 2019"
 - b. "BH Logs, Encls 2 - 8"
 - c. "G4130-19-7 (Draft Geo Invest, Dundalk EcoPark - Jul 2019)"
 - d. "Ground Conditions for Construction of a new Industrial Facility 2005-10"
 - e. "Road to Hwy 10 Preliminary Hydrogeological_Hydrogeological Assessment 2011-09"
12. E-mail dated July 26, 2019 (1:57 p.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on spill containment.
13. E-mail dated August 30, 2019 (12:19 p.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on spill containment, and including the following attachments entitled:
 - a. "Ref#3069-B2MPRE_ECA Waste_Response to Questions_August 30 2019.pdf"

- b. "Staff Report PW2018-049.pdf"
 - c. "GRCA Zoning Amendment Letter.pdf"
14. E-mail dated September 12, 2019 (1:51 p.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on spill containment, and including the following attachments entitled:
- a. "Dundalk Water Well site - Ida Street.pdf"
 - b. "Well Record Ida Street 8914.pdf"
 - c. "Xypex Concentrate.pdf"
 - d. "100m3 Pasteurizer Tank.pdf"
15. E-mail dated September 12, 2019 (1:51 p.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on spill containment, and including the following attachments entitled:
- a. "Chemical Durability of Cement Crystal Increasing Agent Applied Concrete.pdf"
 - b. "Xypex Modified.pdf"
 - c. "Proj Review - Clinton St Project - No 2016 Update.pdf"
16. E-mail dated October 9, 2019 (1:15 p.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on spill containment.
17. E-mail dated October 11, 2019 (10:06 a.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing confirmation that no biogas storage is being proposed.
18. E-mail dated October 15, 2019 (10:17 a.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on spill containment, and including the following attachment entitled:
- a. "17C14 - SC - Secondary Containment Plan & Section.r02.pdf"
19. E-mail dated October 16, 2019 (2:12 p.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the proposal.
20. E-mail dated October 22, 2019 (1:22 p.m.) from Mark Bell, Mattawa Renewable Power Corporation, to Mohsen Keyvani, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the financial assurance estimate calculations, and including the following attachment entitled:
- a. "Mattawa - Southgate AD - FA calculations October 22 2019.pdf"
21. E-mail dated November 6, 2019 (1:37 p.m.) from Mark Bell, Mattawa Renewable Power Corporation, to Mohsen Keyvani and Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the proposal, and including the

following attachment entitled:

- a. "GRCA revised permit dated October 23 2019.pdf"
22. E-mail dated November 12, 2019 (4:03 p.m.) from from Mark Bell, Mattawa Renewable Power Corporation, to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing the estimate for the required financial assurance.
 23. E-mail dated November 15, 2019 (2:12 p.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the conceptual design for the proposed tank farm spill containment area, including the attachment entitled:
 - a. "17C14 - 01 - SC - Secondary Containment Plan & Section.r03.pdf"
 24. E-mail dated November 20, 2019 (1:41 p.m.) from Claire Allen, P.Eng. CH Four Biogas, Inc., to Margaret Wojcik, Ontario Ministry of the Environment, Conservation and Parks, providing additional clarification on the design of the processing building.
 25. Application for this Environmental Compliance Approval dated December 18, 2023, signed by Gary Kissack, Southgate Renewables GP Inc., and submitted by CH Four Biogas, Inc., with attachments.
 26. Email dated December 20, 2024 (5:17 p.m.) from Faraz Ahmad, P.Eng., Envest Corp., to Amanda Tse, Ontario Ministry of the Environment, Conservation and Parks, providing additional clarification on the zoning, design of the Organics Receiving Building, design secondary containment, financial assurance, etc. and including the following attachment entitled:
 - a. "By-law 2024-016 – ZBA C18-23 Southgate Renewables Holdings Corp – signed.pdf"
 - b. "Tecon – Typ III – Membrane data sheet.pdf"
 - c. "Southgate – Containment Area Calculations (ORB + Tank Farm).xlsx"
 - d. "Southgate – FA Calculations – Dec 20, 2024 Update.pdf"
 27. Email dated January 6, 2025 (3:25 p.m.) from Faraz Ahmad, P.Eng., Envest Corp., to Amanda Tse, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the secondary containment and financial assurance and including the following attachment entitled:
 - a. "Southgate – Containment Area Calculations (ORB + Tank Farm) _Rev 01.xlsx"
 - b. "Southgate Renewables – FA Calculation – Jan 04, 2025 Update.pdf"
 28. Email dated January 8, 2025 (1:42 p.m.) from Faraz Ahmad, P.Eng., Envest Corp., to Amanda Tse, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the secondary containment and financial assurance and including the following attachment entitled:
 - a. "Southgate – Grading Plan.pdf"

- b. “Southgate – Containment Area Calculations (ORB + Tank Farm + PWT) _Rev 02.xlsx”
 - c. “Southgate Renewables – FA Calculation – Jan 08, 2025.pdf”
29. Email dated January 8, 2025 (4:40 p.m.) from Faraz Ahmad, P.Eng., Envest Corp., to Amanda Tse, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the secondary containment and financial assurance and including the following attachment entitled:
 - a. “Southgate – Containment Area Calculations (ORB + Tank Farm + PWT) _Rev 03.xlsx”
 30. Email dated January 9, 2025 (9:30 a.m.) from Faraz Ahmad, P.Eng., Envest Corp., to Amanda Tse, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the financial assurance and including the following attachment entitled:
 - a. “Southgate Renewables – FA Calculation – Jan 09, 2025.pdf”
 31. Email dated January 9, 2025 (11:52 a.m.) from Faraz Ahmad, P.Eng., Envest Corp., to Amanda Tse, Ontario Ministry of the Environment, Conservation and Parks, providing additional information on the financial assurance confirming Saugeen has agreed to load, haul, and land apply both solid and liquid digestate.
 32. Email dated January 9, 2025 (12:07 p.m.) from Faraz Ahmad, P.Eng., Envest Corp., to Amanda Tse, Ontario Ministry of the Environment, Conservation and Parks, providing an updated quote in the financial assurance confirming Seaciff Energy Corp. agrees to accept waste from the Process Water Tank at no cost for processing in their anaerobic digestion system and including the following attachment entitled:
 - a. “R Tiessen letter (2024-12-20)_Rev 05 - Jan 08 2024 r Jan 9.pdf”
 33. Email dated January 20, 2025 (12:59 p.m.) from Faraz Ahmad, P.Eng., Envest Corp., to Amanda Tse, Ontario Ministry of the Environment, Conservation and Parks, providing rationale behind extended receiving and removal operating hours. Envest Corp. agreed to change hours on Saturday back to 7:00 a.m. to 4:00 p.m., but still requires the weekday extension to 6:00 a.m. to 10:00 p.m. Monday to Friday to provide flexibility under extenuating circumstances such as managing transportation and trucking during inclement weather, as well as addressing unplanned vehicle repairs and maintenance.

Supporting Documentation - Air/Noise

1. Environmental Compliance Approval Application, dated July 3, 2018, signed by Mark Bell and submitted by the Owner;
2. Emission Summary and Dispersion Modelling (ESDM) Report, prepared by CH Four Biogas, Inc. and dated July 4, 2018;
3. Addendum to ESDM Report, including updates to odour control design and increased biogas processing, prepared by CH Four Biogas, Inc. and dated October 2, 2018;
4. Addendum to ESDM Report, including an odour assessment, prepared by CH Four Biogas, Inc. and

dated November 13, 2018;

5. Addendum to ESDM Report, including details on equipment design, updates to odour assessment and revised air dispersion modelling results (using AERMOD model for assessing odour-based contaminants from multiple source locations and using site-specific meteorological data), prepared by CH Four Biogas, Inc. and dated February 20, 2019 and March 3, 2019;
6. An email from Claire Allen, P.Eng., CH Four Biogas, Inc., sent to Rosalinda Ahmed, Ontario Ministry of the Environment, Conservation and Parks, and dated April 25, 2019, responding to request for additional information on equipment design, odour control approach and compliance assessment;
7. Addendum to ESDM Report, including updates to odour assessment, revised equipment design (for the Combined Heat and Power Cogeneration Unit, Odour Control Units and Biogas Cleaning and Upgrading System), details on ventilation design and associated sensor(s) and details on CEM system for the Odour Control Units, prepared by CH Four Biogas, Inc. and dated April 25, 2019;
8. An email from Claire Allen, P.Eng., CH Four Biogas, Inc., sent to Rosalinda Ahmed, Ontario Ministry of the Environment, Conservation and Parks, and dated August 12, 2019, clarifying the design changes to include two (2) receiving pits in the Processing Building and confirming that the Facility would not be accepting feedstocks with high nitrogen/ ammonia concentrations such as poultry manure;
9. An email from Claire Allen, P.Eng., CH Four Biogas, Inc., sent to Rosalinda Ahmed, Ontario Ministry of the Environment, Conservation and Parks, and dated October 10, 2019, clarifying the design changes to remove the manure tank and decrease the size of the digestate storage tank;
10. Email updates from Claire Allen, P.Eng., CAllen Environmental Inc., on December 10, 12 and 19, 2024; January 09, 10 and 14, 2025;
11. Secondary Noise Screening Method Form prepared by CH Four Biogas, dated December 19, 2023 and signed by Julien Chartrand.

SCHEDULE “B”

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:

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

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.)

SCHEDULE “C”

Emission Limits - Combined Heat and Power Cogeneration Unit

Contaminant	Maximum Limit
Nitrogen Oxides	0.4 kilograms per Megawatt-hour

SCHEDULE “D”

Source Testing Procedures

1. The Owner 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 Owner shall finalize the Pre-Test Plan in consultation with the Manager.
2. The Owner shall not commence the Source Testing required under this Approval until the Manager has approved the Pre-Test Plan.
3. The Owner 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 Owner 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 related to the operation of the Combined Heat and Power Cogeneration Unit and Biofilter at the time of testing, including the quantity of the waste received, the quantity of waste in the receiving pits, volumetric flow rate to the Biofilter, monitored parameters of the Biofilter, etc.;
 - c. description of the emission sources controlled by the Biofilter 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 fully enclosed Organics Receiving Building at the time of testing;
 4. results of Source Testing, including the emission rate, emission concentration, relevant emission factor of nitrogen oxides (expressed as nitrogen dioxide equivalent) from the Combined Heat and Power Cogeneration Unit, and relevant emission factor of total reduced sulphur and odour from the Biofilter.
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 Owner did not notify the Manager, the District Manager and Director of the Source Testing; or
 - c. the Owner 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 Owner 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 "B". The updated Emission Summary Table from the updated ESDM Report shall be submitted with the Source Testing report.

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

Conditions 1.1, 1.4, 1.5, 1.6 and 1.9 are included to clarify the legal rights and responsibilities of the Owner.

Conditions 1.2 and 1.3 are included to ensure that the Site is build and operated in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider.

Condition 1.7(1) is included to ensure that the Site is operated under the corporate name which appears on the application form submitted for this approval and to ensure that the Director is informed of any changes. Condition 1.7(2) is included to restrict potential transfer or encumbrance of the Site without the approval of the Director and to ensure that any transfer of encumbrance can be made only on the basis that it will not endanger compliance with this Approval.

Condition 1.8 is included to ensure that the appropriate Ministry staff has ready access to the operations of the Site which are approved under this Approval. The Condition is supplementary to the powers of entry afforded a Provincial Officer pursuant to the *EPA*, the *OWRA*, the *PA*, the *NMA* and the *SDWA*.

Condition 1.10 is included to ensure that sufficient funds are available to the Ministry to clean up the Site in the event that the Owner is unable or unwilling to do so.

Condition 1.11 is included, pursuant to subsection 197(1) of the *EPA*, to provide that any persons having an interest in the Site are aware that the land has been approved and used for the purposes of

waste disposal.

SIGNS and SITE SECURITY

Condition 2.0 is included to ensure that the Site's users, operators and the public are fully aware of important information and restrictions related to the operation of the Site. Condition 2.0 is also included to ensure that the Site is sufficiently secured, supervised and operated by properly Trained Personnel and to ensure controlled access and integrity of the Site by preventing unauthorized access when the Site is closed and no Site personnel is on duty.

SERVICE AREA, APPROVED WASTE TYPES and RATES

Condition 3.0 is included to specify the approved Organic Waste receipt rate, the approved Organic Waste types and the service area from which the Organic Waste may be accepted at the Site based on the Owner's application and supporting documentation.

SITE OPERATIONS

Condition 4.1 is included to specify the hours of operation for the Site to ensure that the hours of Site's operation do not result in an Adverse Effect or a hazard to the natural environment or any person.

Condition 4.2 is included to ensure that only the approved the Organic Waste types are accepted and handled/processed at the Site.

Conditions 4.3 through 4.13 are included to ensure that waste, including Biogas, storage and management, run-off management and the discharges of emissions to the atmosphere are undertaken in a way which does not result in an Adverse Effect or a hazard to the environment or any person and are in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider.

Conditions 4.4, 4.6, 4.7 and 4.8 are also included to identify the amounts of waste approved to be present at the Site at any one time for the purpose of calculating the Financial Assurance requirements for the Site.

EQUIPMENT and SITE INSPECTIONS and MAINTENANCE

Condition 5.0 is included to require the Site, including the equipment used for waste management and Biogas upgrading operations at the Site, to be inspected and the equipment be maintained thoroughly and on a regular basis to ensure that the operations at the Site are undertaken in a manner which does not result in an Adverse Effect or a hazard to the health and safety of the environment or any person.

WASTE QUALITY CRITERIA and AIR/NOISE REQUIREMENTS

Condition 6.1 is included to identify the parameters to be tested to ensure that the incoming Organic

Waste feedstocks are appropriate for anaerobic digestion approved under this Approval.

Condition 6.2 is included to identify the parameters to be tested for when the Digestate is destined for land application following the processing at the Site.

Condition 6.3 is included to identify the requirements for management of the Residual Waste generated at the Site.

Condition 6.4 is included to identify the Renewable Natural Gas quality criteria required by the owner and the operator of the natural gas distribution infrastructure.

Conditions 6.5 and 6.6 are included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Site.

Condition 6.7 is included to require the Owner to properly operate and maintain the Site/ Equipment to minimize the impact to the environment.

Conditions 6.8, 6.9, 6.10 and 6.11 are included to emphasize that the Site/ Equipment must be operated according to a procedure that will result in compliance with the *EPA*, the Regulations and this Approval.

Condition 6.12 is included to require the Owner to gather accurate information so that compliance with the *EPA*, the Regulations and this Approval can be verified.

TESTING and MONITORING

Conditions 7.1 and 7.2 are included to ensure that the Owner accepts and processes only the waste types that are approved in this Approval and that those wastes that are appropriate for Anaerobic Digestion approved under this Approval.

Conditions 7.1 and 7.2 are also included to ensure that the Owner regularly tests the incoming Organic Waste received for processing at the Site to verify its compatibility with the proposed processing and the proposed final end-use of the Digestate.

Conditions 7.1, 7.3 and 7.4 are included to ensure that the Owner regularly tests the Digestate generated at the Site to verify its compatibility with the proposed final end-use or Final Disposal destination.

Condition 7.5 is included to specify the process monitoring parameters required for a properly functioning operation as per the consensus in the industry and the Ministry's requirements.

Condition 7.6 is included to require the monitoring and testing of the Renewable Natural Gas required for a properly functioning operation as per the consensus in the industry and the Ministry's requirements.

Condition 7.7 is included to require Source Testing to determine nitrogen oxide emission rates.

END-USE of OUTPUTS

Condition 8.0 is included to ensure that all processed wastes are properly managed, processed and disposed of in accordance with the Ministry's regulatory requirements and in a manner that protects the health and safety of the public and the environment.

NUISANCE IMPACT CONTROL and HOUSE KEEPING

Condition 9.0 is included to ensure that the Site is operated and maintained in an environmentally acceptable manner which does not result in a negative impact on the natural environment or any person.

COMPLAINTS RESPONSE PROCEDURE

Condition 10.0 is included to require the Owner to respond to any environmental complaints resulting from the operations at the Site appropriately and in a timely manner and that appropriate actions are taken to prevent any further incidents that may cause complaints in the future.

OPERATIONS MANUAL and STAFF TRAINING

Condition 11.0 is included to ensure that personnel employed at the Site are fully aware and properly trained on the requirements and restrictions related to Site operations under this Approval.

CONTINGENCY MEASURES and EMERGENCY SITUATION RESPONSE PLAN

Condition 12.0 is included to ensure that the Owner is prepared and properly equipped to take action in the event of an emergency situation.

EMERGENCY SITUATIONS RESPONSE and REPORTING

Condition 13.0 is included to require further spill notification to the Ministry, in addition to the requirements already listed in Part X of the *EPA*.

RECORDS KEEPING and RETENTION

Condition 14.0 is included to ensure that detailed records of Site activities, inspections, monitoring and upsets are recorded and maintained for inspection and information purposes.

CLOSURE

Condition 15.0 is included to ensure that final closure of the Site is completed in accordance with Ministry's standards.

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s).
1984-BD9NBD issued on November 28, 2019**

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**

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 24th day of January, 2025



Mohsen Keyvani, P.Eng.
Director
appointed for the purposes of Part II.1 of the

AT/

c: District Manager, MECP Owen Sound
Claire Allen, P.Eng - CAllen Environmental Inc.