

RENEWABLE ENERGY APPROVALNUMBER 4501-9VJK3N
Issue Date: August 27, 2015ZooShare Biogas Co-operative Inc.
42 Heintzman Ave
Toronto, Ontario
M5T 2C7

Project: ZooShare Biogas Co-operative Inc.
Location: Part 1,2 Reference Plan 66R-26013
Lot 2, 3, 4, 5, Concession 3
Toronto City,
M5T 2C7

You have applied in accordance with Section 47.4 of the Environmental Protection Act for approval to engage in a renewable energy project in respect of a Class 3 Anaerobic Digestion Facility consisting of the following:

- the construction, installation, use, operation, maintenance, and retiring of a Class 3 anaerobic digestion facility with a nameplate capacity of 500 kilowatts of electricity (kW_e) as outlined in Schedule "A".

For the purpose of this renewable energy approval, the following definitions apply:

1. "Acoustic Assessment Report" means the report, prepared in accordance with Publication NPC-233 submitted in support of the application, that documents all sources of noise emissions and Noise Control Measures present at the Facility. "Acoustic Assessment Report" also means the Acoustic Assessment Report prepared by Conestoga-Rovers & Associates Ltd., dated January 2015 and signed by Erik Martinez, P.Eng.;
2. "Acoustic Audit" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the Facility, assessed to determine compliance with the Performance Limits for the Facility regarding noise emissions, completed in accordance with the procedures set in Publication NPC-103 and reported in accordance with Publication NPC-233;
3. "Acoustic Audit Report" means a report presenting the results of an Acoustic Audit, prepared in accordance with Publication NPC-233;

4. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is knowledgeable about Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a Facility;
5. "Act" means the *Environmental Protection Act*, R.S.O 1990, c.E.19, as amended;
6. "Activated Carbon Adsorption Units" means the activated carbon adsorption units, described in the Company's Application, this Approval and in the supporting documentation submitted with the Application, to the extent approved by this Approval;
7. "Adverse Effect" has the same meaning as in the Act;
8. "Application" means the application for a Renewable Energy Approval dated February 6, 2014, and signed by Clare Riepma, Chief Engineer, ZooShare Biogas Co-operative Inc., and all supporting documentation submitted with the Application, including amended documentation submitted up to August 27, 2015;
9. "Approval" means this Renewable Energy Approval issued in accordance with Section 47.5 of the Act, including any schedule to it;
10. "A-weighting" means the frequency weighting characteristic as specified in the International Electrotechnical Commission (IEC) Standard 61672, and intended to approximate the relative sensitivity of the normal human ear to different frequencies (pitches) of sound. It is denoted as "A";
11. "A-weighted Sound Pressure Level" means the Sound Pressure Level modified by application of an A-weighting network. It is measured in decibels, A-weighted, and denoted "dBA";
12. "Biomass" means solid or liquid organic waste derived from plants or animals, all readily biodegradable, and as further described in Condition I10 of this Approval;
13. "CFIA" means the Canadian Food Inspection Agency;
14. "Class 1 Area" means an area with an acoustical environment typical of a major population centre, where the background sound level is dominated by the activities of people, usually road traffic, often referred to as "urban hum";
15. "Class 2 Area" means an area with an acoustical environment that has qualities representative of both Class 1 and Class 3 areas:
 1. sound levels characteristic of Class 1 during daytime (07:00 to 19:00 or to 23:00 hours); and
 2. low evening and night background sound level defined by natural environment and infrequent human activity starting as early as 19:00 hours (19:00 or 23:00 to 07:00 hours).

16. "Class 3 Area" means a rural area with an acoustical environment that is dominated by natural sounds having little or no road traffic, such as:
 1. a small community;
 2. agricultural area;
 3. a rural recreational area such as a cottage or a resort area; or
 4. a wilderness area.
17. "Class 4 Area" means an area or specific site that would otherwise be defined as Class 1 or 2 and which:
 1. is an area intended for development with new noise sensitive land use(s) that are not yet built;
 2. is in proximity to existing, lawfully established stationary source(s); and
 3. has formal confirmation from the land use planning authority with the Class 4 area classification which is determined during the land use planning process.

Additionally, areas with existing noise sensitive land use(s) cannot be classified as Class 4 areas.

18. "Company" means ZooShare Biogas Co-operative Inc., and includes its successors and assignees;
19. "Decibel" means a dimensionless measure of Sound Level or Sound Pressure Level, denoted as dB;
20. "Director" means a person appointed in writing by the Minister of the Environment and Climate Change pursuant to section 5 of the Act as a Director for the purposes of section 47.5 of the Act;
21. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Facility is geographically located;
22. "Equipment" means the Activated Carbon Adsorption Units, the reciprocating engine generators, the flare, the associated ancillary equipment and associated infrastructure identified in this Approval and as further described in the Application, to the extent approved by this Approval;
23. "Exhausted" means the capacity of the activated carbon to adsorb contaminant emissions is reached and the Activated Carbon Adsorption Unit is no longer able to effectively reduce emissions;
24. "Equivalent Sound Level" is the value of the constant sound level which would result in exposure to the same total A-weighted energy as would the specified time-varying sound, if the constant sound level persisted over an equal time interval. It is denoted L_{eq} and is measured in dB A-weighting (dBA);
25. "Facility" means the renewable energy generation facility, including the Equipment, as described in this Approval and as further described in the Application, to the extent approved by this Approval;

26. "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* ;
27. "*Fertilizers Act* " means the *Fertilizers Act* , R.S., 1985, c-F-10, as amended;
28. "FOG" means fats, oils and grease (FOG), of plant and animal origin, and accompanying food residuals collected from grease interceptors and/or grease traps at food production, food processing and/or food wholesale and retail facilities;
29. "Independent Acoustical Consultant" means an Acoustical Consultant who is not representing the Company and was not involved in preparing the Acoustic Assessment Report or the design/implementation of Noise Control Measures for the Facility and/or Equipment. The Independent Acoustical Consultant shall not be retained by the Acoustical Consultant involved in the noise impact assessment or the design/implementation of Noise Control Measures for the Facility and/or Equipment;
30. "Liquid Digestate" means the liquid portion of the anaerobically digested (processed) Biomass at the Facility;
31. "Ministry" means the ministry of the government of Ontario responsible for the Act, NMA, OWRA, PA, and SDWA, and includes all officials, employees or other persons acting on its behalf;
32. "NASM" or "Non-agricultural Source Material" has the same meaning as in O. Reg. 267/03;
33. "NMA" means the *Nutrient Management Act, 2002* , S.O. 2002, c. 4, as amended;
34. "Noise Control Measures" means measures to reduce the noise emission from the Facility including, but not limited to silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers. It also means the noise control measures detailed in Schedule B of this Approval.
35. "Odour Management Plan" means a document or a set of documents that provides written instructions to staff of the Company, for the purpose of meeting the requirements of Condition H2 of this Approval.
36. "O. Reg. 267/03" means Ontario Regulation 267/03 "General" made under the NMA;
37. "O. Reg. 359/09" means Ontario Regulation 359/09 "Renewable Energy Approvals under Part V.0.1 of the Act" made under the Act;
38. "OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40, as amended;
39. "PA" means the *Pesticides Act* , R.S.O. 1990, c. P-11, as amended;
40. "Point of Reception" means a Point of Reception as defined in Publication NPC-300.

41. "Processed Material" means Biomass that has undergone processing as approved under this Approval but has not met the criteria to be considered a Fertilizer and therefore is considered Processed Organic Waste or NASM;
42. "Processed Organic Waste" has the same meaning as in Reg. 347;
43. "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 Act, Section 17 of the PA, Section 4 of the NMA, or Section 8 of the SDWA;
44. "Publication NPC-103" means Procedures for Measurements of the Model Municipal Noise Control By-Law, Final Report, August 1978, published by the Ministry as amended;
45. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October 1995, published by the Ministry as amended as amended;
46. "Publication NPC-300" means the Ministry Publication NPC-300, " Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning, Publication NPC-300" August 2013, published by the Ministry as amended;
47. "Reg. 347" means Regulation 347 "General - Waste Management", R.R.O. 1990, made under the Act;
48. "Rejected Waste" means the incoming Biomass received at the Facility that does not meet the incoming waste quality criteria set out in this Approval or which cannot be anaerobically digested (processed);
49. "Residual Waste" means waste resulting from the storage and/or processing of the Biomass at the Facility and which cannot be anaerobically digested (processed) and is destined for final disposal;
50. "SDWA" means *Safe Drinking Water Act, 2002* , S.O. 2002, c. 32, as amended;
51. "Solid Digestate" means the solid portion of the anaerobically digested (processed) Biomass at the Facility;
52. "Source Separated Organics" or "SSO" has the same meaning as in Ontario Regulation 160/99 "Definitions and Exemptions" made under the *Electricity Act, 1998* ;
53. "SRM" means waste that includes, at a minimum, but is not limited to, (a) the skull, brain, trigeminal ganglia, tonsils, spinal cord, and dorsal root ganglia of cattle aged 30 months or older; and (b) the distal ileum of cattle of all ages. SRM may also include other additional materials as defined by the federal Health of Animals Regulations, C.R.C. c. 296, as amended;
54. "Substantiated Complaint" means a complaint received either by the Company or the District Manager that has been confirmed by the Ministry, the cause of which is attributed to the Company's activities at the Facility;
55. "Trained Personnel" means persons knowledgeable in the following through instruction and/or practice:

1. relevant waste management legislation, regulations and guidelines;
2. major environmental concerns pertaining to the waste to be handled;
3. occupational health and safety concerns pertaining to the processes and wastes to be handled;
4. management procedures including the use and operation of equipment for the processes and wastes to be handled;
5. record keeping procedures;
6. emergency response procedures;
7. specific written procedures for the control of Adverse Effects from the Facility;
8. specific written procedures for refusal of unacceptable waste loads; and
9. the requirements of this Approval.

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

TERMS AND CONDITIONS

A - GENERAL

Compliance

- A1. The Company shall construct, install, use, operate, maintain and retire the Facility in accordance with the terms and conditions of this Approval and the Application and in accordance with the following schedules attached hereto:

Schedule A – Facility Description;

Schedule B – Noise Control Measures; and

Additionally, areas with existing noise sensitive land use(s) cannot be classified as Class 4 areas.

- A2. The Company shall ensure a copy of this Approval is:

- (1) accessible, at all times, by Company staff operating the Facility; and
- (2) submitted to the clerk of each local municipality and upper-tier municipality in which the Facility is situated.

- A3. If the Company has a publicly accessible website, the Company shall ensure that the Approval and the Application are posted on the Company's publicly accessible website within five (5) business days of receiving this Approval.

- A4. The Company 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 Facility is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

- A5. Any person authorized to carry out work on or operate any aspect of the Facility shall comply with the conditions of this Approval.
- A6. The Company shall provide the District Manager and the Director at least ten (10) days written notice of the following:
- (1) the commencement of any construction or installation activities at the project location; and
 - (2) the commencement of the operation of the Facility.

Interpretation

- A7. Where there is a conflict between a provision of this Approval and any document submitted by the Company, the conditions in this Approval shall take precedence. Where there is a conflict between one or more of the documents submitted by the Company, the document bearing the most recent date shall take precedence.
- A8. 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.

Other Legal Obligations

- A9. The issuance of, and compliance with the conditions of this Approval does not:
- (1) relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement; or
 - (2) limit in any way the authority of the Ministry to require certain steps be taken or to require the Company to furnish any further information related to compliance with this Approval.

Adverse Effects

- A10. The Facility shall be constructed, installed, used, operated, maintained, and retired in a manner which ensures the health and safety of all persons and does not cause an Adverse Effect.
- A11. The Company shall take steps to minimize and ameliorate any Adverse Effect resulting from the operations at the Facility, including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the Adverse Effect.
- A12. Despite the Company 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.

A13. If at any time odour, pests, litter, dust, noise or other such negative effects are generated at the Facility and cause an Adverse Effect, the Company shall take immediate appropriate remedial action that may be necessary to alleviate the Adverse Effect, including suspension of all waste management activities if necessary.

Change of Ownership

A14. The Company shall notify the Director in writing, and forward a copy of the notification to the District Manager, within thirty (30) days of the occurrence of any of the following changes:

- (1) the ownership of the Facility;
- (2) the operator of the Facility;
- (3) the address of the Company;
- (4) the partners, where the Company 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; and
- (5) the name of the corporation where the Company is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the *Corporations Information Act* , R.S.O. 1990, c. C.39, as amended, shall be included in the notification.

A15. No portion of this Facility shall be transferred or encumbered prior to or after closing of the Facility unless the Company or its successor has deposited with the Ministry sufficient financial assurance for the Director to be satisfied that the conditions of this Approval will be complied with.

A16. In the event of any change in ownership of the Facility, other than a change to a successor municipality, the Company shall notify the successor of and provide the successor with a copy of this Approval, and the Company shall provide a copy of the notification to the District Manager and the Director.

Inspections by the Ministry

A17. No person shall hinder or obstruct a Provincial Officer from carrying out any and all inspections authorized by the OWRA, the Act, the PA, the SDWA or the NMA of any place to which this Approval relates, and without limiting the foregoing:

- (1) 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;
- (2) to have access to, inspect, and copy any records required to be kept by the conditions of this Approval;
- (3) to inspect the Facility, related equipment and appurtenances;

- (4) to inspect the practices, procedures, or operations required by the conditions of this Approval;
- (5) to conduct interviews with staff, contractors, agents and assignees of the Company; and
- (6) to sample and monitor for the purposes of assessing compliance with the terms and conditions of this Approval or the Act, the OWRA, the PA, the SDWA or the NMA.

Information

- A18. Any information requested by the Ministry, concerning the operation of the Facility and its operation under this Approval, including but not limited to any records required to be kept by this Approval, manuals, plans, records, data, procedures and supporting documentation shall be provided to the Ministry, immediately upon request.
- A19. 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:
- (1) 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
 - (2) acceptance by the Ministry of the information's completeness or accuracy.
- A20. The Company shall ensure that a copy of this Approval, in its entirety and including all its notices of amendment, and the Application, are retained at the Facility at all times.

Decommissioning and Closure

- A21. The Company shall, at least six (6) months prior to the anticipated retirement date of the entire Facility, or part of the Facility, review its Decommissioning Plan Report to ensure that it is still accurate. If the Company determines that the Facility cannot be decommissioned in accordance with the Decommissioning Plan Report, the Company shall provide the Director and District Manager a written description of plans for the decommissioning of the Facility.
- A22. The Facility shall be retired in accordance with the Decommissioning Plan Report and any directions provided by the Director or District Manager.
- A23. Within ten (10) days after closure of the Facility, the Company shall notify the Director and District Manager, in writing, that the Facility is closed and that the Facility Decommissioning Plan Report has been implemented.

B - EXPIRY OF APPROVAL

- B1. Construction and installation of the Facility must be completed within three (3) years of the later of:

- (1) the date this Approval is issued; or
- (2) if there is a hearing or other litigation in respect of the issuance of this Approval, the date that this hearing or litigation is disposed of, including all appeals.

B2. This Approval ceases to apply in respect of any portion of the Facility not constructed or installed before the later of the dates identified in Condition B1.

C - WATER TAKING

C1. The Company shall only take water from the source, during the period and at the rate and amount of taking specified in Table A. Water takings are authorized only for the purposes of construction dewatering. All dewatering activities under this Approval shall be completed by August 30, 2016.

Table A

Source Name / Description	Source / Type	Taking Specific Purpose	Taking Major Category	Max. Taken per Minute (litres)	Max. Num. of Hrs Taken per Day	Max. Taken per Day (litres)	Max. Num. of Days Taken per Year	Zone / Easting / Northing
1 Dewatering system	Well Sand Point	Construction	Dewatering Construction	70	24	100,000	365	17 647140 4853115
						Total Taking	100,000	

Monitoring

- C2. Prior to any dewatering activities, the Company shall complete all the necessary work, including construction of two (2) sediment traps as described in described in the following documents:
- *Toronto Zoo Anaerobic Digester Project, Stormwater Management Report* dated July 20, 2015, prepared by MGM Consulting Inc. and signed by M.L. Stairs, P.Eng.
 - *Re: Dewatering and Contingency Plan, Proposed Digester and Biogas Facility, Toronto Zoo, Scarborough, Ontario* dated April 30, 2015, prepared by Terraprobe Inc., and signed by Paul L. Raeppe, P.Geo., and Paul W. Bowen, P.Geo., P.Eng.
 - *Effluent Management Report, Toronto Zoo Anaerobic Digester* , dated August 2013, prepared by Riepma Consultants Inc.

In addition, the Company shall test and verify the estimated percolation rate at the sediment traps to ensure that the constructed sediment traps will work as per design.

- C3. The Company shall, on each day water is taken under the authorization of this Approval, record the date, the volume of water taken on that date and the rate at which it was taken. The daily volume of water taken shall be measured by a flow meter. The Company shall keep all records required by this condition current and available at or near the site of the taking and shall produce the records immediately for inspection by a Provincial Officer upon his or her request. The Company, unless otherwise required by the Director, shall submit, on or before March 31st in every year, the daily water taking data collected and recorded for the previous year to the Ministry's Water Taking Reporting System.
- C4. The Company shall implement the monitoring and mitigation program as described in the documents referred to in Condition C2. The Company shall keep all monitoring records available for inspection and review upon request by the Ministry.
- C5. The Company shall submit an implementation report prepared by a qualified person (P.Ge. or P.Eng.) to the District Manager following the completion of the proposed dewatering activities. The report shall include, but not be limited to, a summary of water taking records, the required site percolation testing result, and any water quality and quantity sampling results conducted during dewatering activities, as well as a description about the management of dewatering effluent indicating how the conditions listed in this section of the Approval have been satisfied.

Impacts of the Water Taking

- C6. The Company shall immediately notify the local District Office of any complaint arising from the taking of water authorized under this Approval and shall report any action which has been taken or is proposed with regard to such complaint. The Company shall immediately notify the local District Office if the taking of water is observed to have any significant impact on the surrounding waters. After hours, calls shall be directed to the Ministry's Spills Action Centre at 1-800-268-6060.
- C7. If the taking of water is observed to cause any negative impact to other water supplies obtained from any adequate sources that were in use prior to initial issuance of the Approval for this water taking, the Company shall take such action necessary to make available to those affected, a supply of water equivalent in quantity and quality to their normal takings, or shall compensate such persons for their reasonable costs of so doing, or shall reduce the rate and amount of taking to prevent or alleviate the observed negative impact. Pending permanent restoration of the affected supplies, the Company shall provide, to those affected, temporary water supplies adequate to meet their normal requirements, or shall compensate such persons for their reasonable costs of doing so.

If permanent interference is caused by the water taking, the Company shall restore the water supplies of those permanently affected.

- C8. The Company shall manage the dewatering effluent discharge in accordance with the documents referred to in Condition C2. In particular, the Company shall ensure that no dewatering effluent will be discharged, either directly or indirectly, into any surface watercourse or the natural environment other than into the groundwater via the constructed sediment traps. To ensure compliance with this condition, the Company shall implement the necessary maintenance work and conduct daily inspections to maintain the required percolation rate at the sediment traps.

D - STORMWATER MANAGEMENT AND TEMPORARY EROSION AND SEDIMENT CONTROL

- D1. The infiltration trench referenced in the *Toronto Zoo Anaerobic Digester Project, Stormwater Management Report* dated July 20, 2015, prepared by MGM Consulting Inc. and signed by M.L. Stairs, P.Eng., shall be constructed after the construction phase of the project and the final design shall be submitted to the Director and District Manager.
- D2. Notwithstanding Condition C8, the Company shall inspect the sediment trap on a weekly basis and after all rainfall and significant snowmelt events during construction. Damages shall be repaired within 24 hours of the discovery of damage.
- D3. When sediment accumulates to half of the sediment trap volume the Company shall remove and dispose of the sediment in a controlled area and stabilized.
- D4. The Company shall install and maintain temporary sediment and erosion control measures during construction and conduct inspections once every two (2) weeks and after each significant storm event (a significant storm event is defined as a minimum of 25 mm of rain in any 24 hours period). The inspections and maintenance of the temporary sediment and erosion control measures shall continue until they are no longer required and at which time they shall be removed and all disturbed areas reinstated properly.
- D5. The Company shall maintain records of inspections and maintenance which shall be made available for inspection by the Ministry, upon request. The record shall include the name of the inspector, date of inspection, and the remedial measures, if any, undertaken to maintain the temporary sediment and erosion control measures.

E - ARCHAEOLOGICAL RESOURCES

- E1. The Company shall implement all of the recommendations, if any, for further archaeological fieldwork and for the protection of archaeological sites included in the Application, and which the Company submitted to the Ministry of Tourism, Culture and Sport as required by O. Reg. 359/09.
- E2. Should any previously undocumented archaeological resources be discovered, the Company shall:
 - (1) immediately cease all alteration of the area in which the resources were discovered;
 - (2) engage a consultant archaeologist to carry out the archaeological fieldwork necessary to further assess the area and to either protect and avoid or excavate any sites in the area in accordance with the *Ontario Heritage Act*, the regulations under that act and the Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists*; and
 - (3) notify the Director as soon as reasonably possible.

F - NATURAL HERITAGE

- F1. The Company shall implement the commitments made in the *Toronto Zoo Anaerobic Digester Natural Heritage Assessment in Support of a Renewable Energy Approval as per Ontario Regulation 359/09* dated October 2013 and prepared by Savanta Inc., and included in the Application, and which the Company submitted to the Ministry of Natural Resources and Forestry in order to comply with O. Reg. 359/09.

G - MUNICIPAL, CONSERVATION AUTHORITY, AND PARKS CANADA CONSULTATION

- G1. Within three (3) months of receiving this Approval, the Company shall prepare a Traffic Management Plan and provide it to the City of Toronto.
- G2. Within three (3) months of having provided the Traffic Management Plan to the City of Toronto, the Company shall make reasonable efforts to enter into a Road Users Agreement with the City of Toronto.
- G3. If a Road Users Agreement has not been signed with the City of Toronto within three (3) months of having provided the Traffic Management Plan to the City of Toronto, the Company shall provide a written explanation to the Director as to why this has not occurred.
- G4. The Company shall make reasonable efforts to keep the City of Toronto, the Toronto and Region Conservation Authority, and Parks Canada informed of construction and operation activities associated with the facility, and make reasonable efforts to ensure that all commitments made to City of Toronto, the Toronto and Region Conservation Authority, and Parks Canada are met.
- G5. The Company shall ensure that activities requiring authorization from the Toronto and Region Conservation Authority will not commence until necessary authorizations are in place.

H - AIR AND NOISE

Odour Control Measures

- H1. The Company shall take measures to minimize odorous emissions from all potential sources at the Facility.

Odour Management Plan

- H2. The Company shall prepare, prior to receipt of any waste at the Facility, implement and update as necessary, an Odour Management Plan identifying fugitive odour emission sources from the operation of the Facility and outlining the physical and procedural controls such as policies and standard operating procedures required in order to prevent or mitigate fugitive odour emissions.

Activated Carbon Adsorption Units

- H3. The Company shall monitor the operational parameters of the Activated Carbon Adsorption Units, either as specified in the manual of the Activated Carbon Adsorption Units manufacturer, or as deemed necessary in accordance with Facility operational conditions. The results of monitoring these parameters shall be manually or digitally recorded in a log.

H4. The Company shall ensure that the activated carbon in the Activated Carbon Adsorption Units is replaced before it is Exhausted.

Biogas Flare System

H5. The Company shall ensure that the biogas flare system is designed and operated to comply, at all times, with a destruction efficiency of at least 98%.

H6. The Company shall maintain the biogas flare system, so that in the instance of a process upset and/or when the reciprocating engine generators are inoperable, that the flare may be utilized to burn off-spec gases and as a fully functional standby system.

Noise Performance Requirements

H7. The Company shall:

- (1) implement prior to the commencement of operation of the Equipment, the Noise Control Measures detailed in Schedule B of this Approval;
- (2) ensure, subsequent to the implementation of the Noise Control Measures that the noise emissions from the Facility comply with the limits set out in Ministry Publication NPC-300; and
- (3) ensure that the Noise Control Measures are properly maintained and continue to provide the acoustical performance outlined in the Acoustic Assessment Report.

Acoustic Audit

H8. The Company shall carry out Acoustic Audit measurements on the actual noise emissions due to the operation of the Facility. The Company:

- (1) shall carry out Acoustic Audit measurements in accordance with the procedures in Publication NPC-103;
- (2) shall submit an Acoustic Audit Report on the results of the Acoustic Audit, prepared by an Independent Acoustical Consultant, in accordance with the requirements of Publication NPC-233, to the District Manager and the Director, not later than six (6) months after the commencement of operation of the Facility.

H9. The Director:

- (1) may not accept the results of the Acoustic Audit if the requirements of Publication NPC-233 were not followed;
- (2) may require the Company to repeat the Acoustic Audit if the results of the Acoustic Audit are found unacceptable to the Director.

I - BIOMASS MANAGEMENT

General

Build in Accordance

- I1. Except as otherwise provided by this Approval, the Facility shall be designed, developed, built, operated and maintained in accordance with the Application.
- I2. Any design optimization or modification that is inconsistent with the conceptual design set out in the Application shall be clearly identified, along with an explanation of the reasons for the change, and submitted to the Director for approval and a copy to the District Manager.

As-built Drawings

- I3. Within ninety (90) days after the day waste is first received at the Facility, a set of as-built drawings showing the Facility, as constructed, shall be prepared. The drawings shall be kept up-to-date through periodic revisions and shall be retained at the Facility. An amendment to this Approval shall be sought for changes to the as-built drawings requiring approval.

Financial Assurance

- I4. At least thirty (30) days prior to the construction of the Facility the Company shall submit to the Director, financial assurance, as defined in Section 131 of the Act, for the amount of \$83,480.21. This financial assurance shall be in a form acceptable to the Director and shall provide sufficient funds for the transportation, Facility clean-up, and disposal, of all quantities of waste at the Facility at any one time. No Biomass shall be received at the Facility unless the acceptable Financial Assurance has been submitted to the Ministry and approved by the Director.
- I5. Commencing on March 31, 2018 and at intervals of three (3) years thereafter, the Company shall submit to the Director, a re-evaluation of the amount of financial assurance to implement the actions required under Condition I4. The re-evaluation shall include an assessment based on any new information relating to the environmental conditions of the Facility 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) days of written acceptance of the re-evaluation by the Director.
- I6. Commencing on March 31, 2017, the Company shall prepare and maintain at the Facility an updated re-evaluation of the amount of financial assurance required to implement the actions required under Condition I4 for each of the intervening years in which a re-evaluation is not required to be submitted to the Director under Condition I5. The re-evaluation shall be made available to the Ministry upon request

17. 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.

Complaints Response Procedure

18. If at any time, the Company receives any complaints from the public regarding the operation of the Facility, the Company shall respond to these complaints according to the following procedures:

Step 1: Receipt of Complaint

- (1) The Company shall record each complaint in an electronic tracking system. The information recorded shall include the following:
- (a) name, address and the telephone number of the complainant, if known;
 - (b) time and date of the complaint; and
 - (c) details of the complaint.

Step 2: Investigation of Complaint

- (2) After the complaint has been recorded in the tracking system, the Company shall, as soon as practicably possible but not later than one (1) business day after the receipt of the complaint, notify either by phone or in writing the District Manager of the receipt of the complaint. The Company shall also immediately initiate investigation of the complaint. The investigation shall include, as a minimum, the following:
- (a) determination of the waste management activities undertaken in the Facility at the time of the complaint;
 - (b) 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;
 - (c) determination of the possible cause(s) of the complaint.
- (3) The Company shall forward a formal reply to the complainant, if known and to the District Manager within three (3) business days 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.

All of the information collected and actions taken in this step must be recorded in the tracking system.

Service Area, Approved Waste Types, Rates and Storage

Service Area & Waste Types

19. The service area for the Facility is Province of Ontario.

I10. The operation of this Facility is limited to receipt and processing of the following types of liquid and solid Biomass:

Tier 1 Biomass:

- Liquid/solid manure from Toronto Zoo and other sources as described in the Application;
- Liquid organic wastes, such as dairies, fruit and vegetable wastes, and meat products, from grocery stores and other sources as described in the Application.

Tier 2 Biomass:

FOG.

I11. The Company shall not accept at the Facility any waste that is classified as hazardous waste in accordance with Reg. 347, SSO and any waste that is classified as SRM.

I12. Biomass rates, receipt rates, and waste storage at the Facility:

- (1) The total amount of Biomass approved to be accepted at the Facility shall not exceed 17,000 tonnes per year, which includes the following:
 - (a) no more than 3,000 tonnes per year of solid/liquid manure from Toronto Zoo and as described in the Application;
 - (b) no more than 12,000 tonnes per year of liquid waste from grocery stores and as described in the Application; and
 - (c) no more than 2,000 tonnes per year of FOG.
- (2) The maximum daily amount of Biomass approved to be accepted at the Facility shall not exceed 46 tonnes per day, averaged annually.
- (3) Biomass approved to be stored at the Facility is subject to the following limitations:
 - (a) No more than 1,094 cubic metres of Tier 1 and Tier 2 Biomass shall be stored at the following tanks, within the Facility, at any one time:
 - (i) One (1) hydrolysis receiving tank with a volume of 159 cubic metres;
 - (ii) One (1) hydrolysis tank with a volume of 324 cubic metres;
 - (iii) One (1) hydrolysis buffer tank with a volume of 324 cubic metres;
 - (iv) One (1) pasteurizer receiving tank with a volume of 102 cubic metres;
 - (v) One (1) pasteurizer tank with a volume of 62 cubic metres;
 - (vi) One (1) pasteurizer buffer tank with a volume of 123 cubic metres
 - (b) No more than 2,077 cubic metres of Biomass being processed shall be contained within the digester tank.
- (4) The Digestate storage at the Facility is subject to the following limitations:
 - (a) no more than 7,106 cubic metres digestate shall be storage at the Facility at the digestate storage tank
 - (b) Liquid Digestate shall be stored in two (2) digestate storage tanks, one of which has a storage capacity of 2,077 cubic metres and the other 5,029 cubic metres.

- (5) No waste or Biomass shall be stored on any part of the Facility other than those identified in Condition I12(3) at any time.
- (6) In the event that Biomass cannot be processed at the Facility and the Facility is at its approved Biomass storage capacity, the Company shall cease accepting additional Biomass. Receipt of additional Biomass may be resumed once such receipt complies with the Biomass storage limits approved in this Approval.
- (7) The Company shall ensure that all manure feedstock are stored in the one (1) outdoor in-ground hydrolysis receiving tank, with the receiving tank door closed at all times except during manure receiving (via open dump trucks). Outdoor storage shall be undertaken in a manner that does not cause an Adverse Effect or a hazard to the environment or any person.
- (8) The Company shall ensure that all liquid organic feedstock from Tier 1 and Tier 2 Biomass are stored in the one (1) pasteurizer receiving tank, exhausting at all times into one (1) Activated Carbon Adsorption Unit approved under this Approval. Outdoor storage shall be undertaken in a manner that does not cause an Adverse Effect or a hazard to the environment or any person.

Signs

- I13. Prior to receipt of Biomass at the Facility, the Company shall ensure that a sign is posted at the entrance to the Facility. The sign shall be visible from the main road leading to the Facility. The following information shall be included on the sign:
- (1) name of the Company;
 - (2) this Approval number;
 - (3) hours during which the Facility is open;
 - (4) Biomass types that are approved to be accepted at the Facility;
 - (5) Company's telephone number (a hotline) to which complaints may be directed;
 - (6) Company's twenty-four hour emergency telephone number (if different from above);
 - (7) a warning against unauthorized access; and
 - (8) a warning against dumping at the Facility.
- I14. The Company shall ensure that appropriate signs are posted at the Facility clearly identifying the Biomass and stating warnings about the nature of the Biomass and any possible hazards.

Facility Security

- I15. All unloading and loading of the Biomass and all Biomass processing at the Facility shall at all times be undertaken by Trained Personnel.
- I16. The Company shall ensure that access to the Facility is regulated and that all entrances are secured by lockable gates to restrict access only to authorized personnel when the Facility is not open.

- I17. The Company shall ensure the Facility is operated in a safe and secure manner, and that the Biomass is properly handled, packaged or contained and stored so as not to pose any threat to the general public and the Facility personnel.

Facility Operations

- I18. Operating hours:
(1) The Facility is approved to receive waste Monday to Saturday, and operate 24/7/365.
- I19. No sorting, source separating or unpacking of the Biomass shall be conducted at the Facility.
- I20. Incoming Biomass receipt:
(1) All loads of incoming Biomass shall be accompanied by documentation containing the results of the required Biomass characterization or the identification of a pre-approved generator of Biomass.
(2) Trained Personnel shall inspect the required documentation prior to acceptance of the incoming Biomass at the Facility.
(3) Biomass 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 Facility and shall immediately be directed out of the Facility.
(4) The Company shall only accept the incoming Biomass that is delivered in vehicles that have been approved as required by the Ministry.
(5) The Company shall ensure that the Biomass and Liquid Digestate levels in all tanks including but is not limited to the receiving tanks, pasteurizer receiving tank and pasteurizer tank at the Facility are monitored and controlled on a continuous basis and that the high level alarms are installed and operational at all times.
- I21. Rejected Waste handling:
(1) In the event that waste that is not approved under this Approval is inadvertently accepted at the Facility, the Company shall ensure that the Rejected Waste is returned in the same truck in which it arrived at the Facility.
(2) In the event that Rejected Waste is inadvertently accepted at the Facility and it was returned in the same truck, the Company shall ensure that the Rejected Waste is:
(a) stored in a way that ensures that no Adverse Effects result from such storage;
(b) segregated from all other Biomass;
(c) handled and removed from the Facility in accordance with Reg. 347 and the Act; and
(d) removed from the Facility within forty-eight (48) hours of its receipt or as acceptable to the District Manager.
(3) In the event that a waste load is refused or unacceptable waste is inadvertently accepted at the Facility, a written record shall be made in the daily log book or in an electronic file of the reason why the waste was refused and the origin of the waste, if known. The Company shall notify the District Manager, in writing, of the receipt of unacceptable waste within three (3) business days of its receipt. The following information shall be included in the written record:
(a) quantity and type of the Rejected Waste;
(b) source of the Rejected Waste, if known;
(c) reason for rejecting the waste;

- (d) final destination of the Rejected Waste; and
- (e) date of receipt and time and date of removal from the Facility.

I22. Operation of pasteurizer:

- (1) The Company shall ensure that the pasteurizer treating Tier 2 and/or mixture of Tier 1 and Tier 2 Biomass (if Tier 1 and Tier 2 Biomass received as a mixture) is operating in such a manner that it is sealed tight that there is no leakage of waste into the natural environment.
- (2) The Company shall ensure that Tier 2 and/or mixture of Tier 1 and Tier 2 Biomass (if Tier 1 and Tier 2 Biomass received as a mixture) is pasteurized in the pasteurization tanks, and that the pasteurization process is undertaken at a minimum temperature of 70°C for a minimum of one (1) hour or at a minimum temperature of 50°C for a minimum of twenty (20) hours, to ensure complete inactivation of pathogens in the Biomass.
- (3) The temperature in the pasteurization tank shall be monitored to verify compliance with Condition I22(2).

I23. Processing limitations, at any one time:

- (1) No more than 62 cubic metres of Biomass shall be processed in the pasteurization tank;
- (2) No more than 2,077 cubic metres of Biomass being processed shall be contained within the digester tank;
- (3) No more than 200 cubic metres of Solid Digestate shall be stored on the concrete pad; and
- (4) No more than 7,106 cubic metres of Liquid Digestate Biomass shall be stored within two storage vessels (one tank with 2,077 cubic metres capacity and second tank with 5,029 cubic metres capacity).

I24. Odour Control:

- (1) The Company shall ensure that, except during manure receiving/unloading, the hydrolysis receiving tank door remains closed at all times to prevent the release of fugitive odours. Facility operations shall minimize the exposed surface area of the hydrolysis receiving tank during manure receiving and shall close the tank door as soon as possible.
- (2) The Company shall ensure that, except during manure receiving/unloading, the exhausts from the one (1) hydrolysis receiving tank, one (1) hydrolysis tank, one (1) hydrolysis buffer tank, one (1) pasteurizer receiving tank, one (1) pasteurizer tank and one (1) pasteurizer buffer tank are discharged to the air through fully functional Activated Carbon Adsorption Units approved under this Approval.
- (3) (a) If in the opinion of the District Manager, the air emissions from the Facility result in odour complaint(s), the Company shall, immediately upon receipt of the written notification from the District Manager, implement additional odour control measures in accordance with the Emergency Response and Contingency Plan required by this Approval.

- (b) If in the opinion of the District Manager, the additional odour control measures as per Condition I24(3)(a) are found to be unsuitable or ineffective, the District Manager may direct the Company, in writing, to take further measures to address the noted failure, upset or malfunction including pursuant to section 39 of the EPA requiring a reduction in the receipt of waste, cessation of the receipt of waste, removal and off site disposal of waste and suspending operational activities at the Facility in accordance with the Emergency Response and Contingency Plan required by this Approval, until such time as the cause(s) of the odour emissions have been identified and rectified.

Facility Inspection and Maintenance

- I25. Prior to receipt of any waste at the Facility, the Company shall prepare a comprehensive written inspection program which includes inspections of all aspects of the Facility's operations including, as a minimum, the following:
- (1) buildings and equipment;
 - (2) Biomass unloading areas;
 - (3) Hydrolysis receiving tank, hydrolysis tank, hydrolysis buffer tank, pasteurizer receiving tank , pasteurizer tank , pasteurizer buffer tank , digester tank, two Liquid Digestate storage vessels, biogas storage building concrete pad where Solid Digestate stored, flare, and related pumps, piping, and equipment;
 - (4) any installed air pollution control equipment;
 - (5) security measures undertaken to secure the Biomass storage and processing areas;
 - (6) sediment traps (referenced in the Stormwater Management Report dated July 20, 2015);
 - (7) presence of leaks and drips;
 - (8) security fencing, gates, barriers and signs; and
 - (9) off-site impacts such as odour, dust, litter, etc.
- I26. The inspections are to be undertaken daily by Trained Personnel in accordance with the inspection program to ensure that all equipment, buildings, tanks, storage and processing areas at the Facility 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.
- I27. The Company shall develop and implement a preventative maintenance program for all on-site equipment associated with the processing and managing of Biomass and control of noise, odour and dust emissions. The preventative maintenance program shall be maintained up-to-date and shall be available for inspection by the Ministry upon request.
- I28. When the Biomass storage tanks/areas are cleaned out, the tanks/areas shall be internally inspected to ensure the integrity of its structure.

Biomass Quality Criteria / Testing / Monitoring

- I29. Quality control monitoring of incoming Biomass at the Facility:
- (1) No hazardous waste, as defined in Reg. 347, SSO and SRM shall be received at the Facility at any time.

- (2) The incoming Biomass, other than the waste exempted in Reg. 347, shall not be accepted at the Facility if the analytical requirements listed in Condition I29 have not been fulfilled or if the analysis of the Biomass as described in Conditions I30 and I31 determines that the metal content in the Biomass exceeds the metal content limits set out in Table 1 below.

TABLE 1

Column 1	Column 2	Column 3
Regulated Metal	Maximum metal concentration in materials that contain total solids dry weight of 10,000 milligrams or more per litre (mg/kg of total solids dry weight (wt))	Maximum metal concentration in materials that contain total solids dry weight of less than 10,000 milligrams per litre (mg/L)
Arsenic	170	1.70
Cadmium	34	0.34
Chromium	2,800	28
Cobalt	340	3.40
Copper	1,700	17
Lead	1,100	11
Mercury	11	0.11
Molybdenum	94	0.94
Nickel	420	4.20
Selenium	34	0.34
Zinc	4,200	42

- I30. The Company shall ensure that prior to acceptance of a Biomass at the Facility, representative samples of the Biomass are obtained from the proposed generator of the Biomass and analysed during the 14-day period preceding its first-time receipt at the Facility.
- I31. Subsequent sampling and analysis shall be conducted:
- (1) quarterly, provided the Biomass is of the same type and is from the same source; and
 - (2) following any process changes, changes to the type and/or source of Biomass within the approved type and/or source of Biomass, operational issues or other factors that may affect the quality of Biomass from the proposed generator.
- I32. The Company shall ensure that:
- (1) each sample of the Biomass obtained under Conditions I30 and I31 has been analysed for metals identified in Column 1 of Table 1 of this Approval, in accordance with the methods and frequencies specified in Conditions I29, I30 and I31; and
 - (2) sampling and analysis of Biomass for metals is conducted in accordance with the methods specified in the Sampling and Analysis Protocol for O. Reg. 267/03.
- I33. The Company shall ensure a copy of the analysis sets out the concentration of metal in each sample of the Biomass in:
- (1) 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;
 - (2) 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.

- I34. The analysis of samples of the incoming Biomass shall be performed by:
- (1) a laboratory that is accredited by the Ontario Ministry of Agriculture, Food and Rural Affairs for that purpose; or
 - (2) 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.
- I35. In order to resume accepting a given Biomass following previous rejection, the Company shall ensure that the analytical requirements listed in Conditions I29 to I34 have been fulfilled and that at least two (2) representative samples of the said Biomass generate analytical results which, separately and consecutively, do not exceed the metal content limits set out in Table 1 of this Approval.

Quality Control Monitoring of Processed Material

- I36. Processed Material that is not offered for sale or sold as Fertilizer in accordance with the Fertilizers Act shall be managed as either Processed Organic Waste in accordance with Part V of the Act and Reg. 347, and/or NASM in accordance with the NMA and O. Reg. 267/03.
- I37. If Processed Material is to be managed as Processed Organic Waste and/or NASM, the Company shall ensure that the sampling and analysis of the material, prior to leaving the Facility, is conducted in accordance with the methods specified in the Sampling and Analysis Protocol for O. Reg. 267/03.

End Use of Processed Material

- I38. Prior to the initial shipment of the Processed Material from the Facility, the Company shall provide to the Director and District Manager written notification from the CFIA that the Processed Material has been assessed and approved for use as Fertilizer under the Fertilizers Act. In addition to the written notification, the Company shall provide to the Director and District Manager the following information:
- (1) a copy of the complete application package submitted to the CFIA in support of the request to manufacture the Fertilizer;
 - (2) the specific requirements of the CFIA that must be met for the Processed Material to be considered as a Fertilizer including all process monitoring, analytical, and quality assurance/quality control requirements; and
 - (3) a copy of the approved product label.
- I39. All Processed Material shipped from the Facility as Fertilizer must be accompanied by a product label that has been approved by the CFIA.
- I40. If the Processed Material is not offered for sale or sold as Fertilizer in accordance with the Fertilizers Act, it shall be managed as Processed Organic Waste and/or NASM in accordance with the requirements of the Act, the OWRA, the NMA and any other relevant Ministry legislation and guidelines.
- I41. Processed Material managed as Processed Organic Waste and/or NASM shall only be removed from the Facility by a hauler approved by the Ministry to transport processed organic waste and/or NASM.

- I42. Processed Material managed as Processed Organic Waste shall be disposed of at a Ministry approved site or a site approved to accept such waste by an equivalent jurisdiction.
- I43. If Processed Material that is managed as Processed Organic Waste is destined for application on non-agricultural land, for beneficial use, the Company shall ensure the land application meets the conditions of the Environmental Compliance Approval for the site where Processed Organic Waste is to be applied on non-agricultural land.
- I44. If Processed Material that is managed as NASM is destined for application on agricultural land, the Company shall ensure the land application of NASM meets the regulatory requirements of the NMA and O. Reg. 267/03.
- I45. If the Processed Material is not offered for sale, sold as Fertilizer in accordance with the Fertilizers Act, or managed as Processed Organic Waste and/or NASM, it may be delivered to a waste disposal site approved to receive this type of waste, where it will be used for processing (composting), all in accordance with the Environmental Compliance Approval of the site.

Nuisance Impact Control and Housekeeping

- I46. The Company shall ensure that the exterior of all vehicles leaving the Facility are clear of debris and that vehicles are not leaking, dripping, or dragging waste, dirt or other contaminants out onto streets.
- I47. The Company shall ensure that there is no queuing or parking of vehicles that are waiting to enter the Facility on any roadway that is not a distinct part of the Facility.
- I48. The Company shall:
- (1) implement necessary housekeeping procedures to eliminate sources of attraction for vermin and vectors; and
 - (2) if necessary, hire a qualified, licensed pest control professional to design and implement a pest control plan for the Facility. The pest control plan shall remain in place, and be updated from time to time as necessary, until the Facility has been closed and this Approval has been revoked.
- I49. The Company shall ensure that all on-site roads and operations/yard areas are regularly swept/washed to prevent dust impacts off-site.
- I50. The Company shall regularly clean, if necessary, all equipment and storage areas that are used to handle and process the Biomass at the Facility.

J - OPERATIONS MANUAL

- J1. Prior to receipt of any waste at the Facility, the Company shall prepare a written operations manual for use by Facility personnel. The operations manual shall contain, as a minimum, the following:
- (1) outline the responsibilities of the Facility personnel;
 - (2) personnel training protocols;
 - (3) Biomass receiving procedures;
 - (4) Biomass unloading, handling and storage procedures;

- (5) Biomass processing and monitoring procedures;
- (6) sampling and testing procedures;
- (7) Facility inspections, fire, spill, upset, and leakage recording procedures;
- (8) emergency response procedures;
- (9) procedures for handling complaints as described in this Approval;
- (10) routine operating and maintenance procedures in accordance with good engineering practices and as recommended by the Equipment suppliers;
- (11) the frequency of the replacement of the activated carbon in the Activated Carbon Adsorption Units;
- (12) procedures for monitoring the performance of the Activated Carbon Adsorption Units; and
- (13) all appropriate measures to minimize odour, dust and noise emissions from all potential sources at the Facility.

J2. The Company shall:

- (1) keep a copy of the operations manual at the Facility and accessible to Facility personnel at all times;
- (2) update the operations manual as required; and
- (3) make the operations manual available for review by the Ministry upon request.

J3. The Company shall ensure that the Facility is operated in accordance with the Approval and the operations manual.

J4. The Company shall maintain at the Facility an inventory of critical spare parts for the equipment that can be installed in the event of equipment malfunction and shall list the critical spare parts in the operations manual.

K - STAFF TRAINING

K1. All operators of the Facility shall be trained with respect to the following:

- (1) terms, conditions and operating requirements of this Approval;
- (2) operation and management of the Facility, or area(s) within the Facility, as per the specific job requirements of each individual operator, and which may include procedures for receiving, and identifying waste, refusal, handling, processing and temporarily storing wastes;
- (3) an outline of the responsibilities of Facility personnel including roles and responsibilities during emergency situations;
- (4) the Emergency Response and Contingency Plan including exit locations and evacuation routing, and location of relevant equipment available for emergency situations;
- (5) environmental and occupational health and safety concerns pertaining to the process and wastes to be handled at the Facility;
- (6) emergency first-aid information;
- (7) relevant air, noise, wastewater and waste management legislation, regulations, and guidelines, including the Act and Reg. 347;
- (8) record keeping and retention procedures, as required by this Approval;
- (9) Facility inspection and maintenance procedures, as required by this Approval;
- (10) nuisance impact control and housekeeping procedures, as required by this Approval;
- (11) procedures for recording and responding to public complaints;

- (12) specific written procedures for the control of Adverse Effects from the Facility; and
- (13) specific written procedures for refusal of unacceptable incoming waste loads.

K2. The Company shall ensure that all Facility personnel are trained in the requirements of this Approval relevant to the employee's position:

- (1) upon commencing employment at the Facility in a particular position; and
- (2) whenever the Emergency Response and Contingency Plan is revised or updated.

L - EMERGENCY RESPONSE AND CONTINGENCY PLAN

L1. Within six (6) months of the date of this Approval, the Company shall submit to the District Manager an emergency Response and Contingency Plan. The Emergency Response and Contingency Plan shall be prepared in consultation with the District Manager, the local municipality, and the local fire department, and as a minimum, shall include the following information and items described:

- (1) emergency response procedures to be undertaken in the event of a spill, process upset, power failure, fire, or any other emergency situation, including specific clean up methods for wastes expected to be generated from the emergency situation;
- (2) odour abatement plan to propose the design and operation of the contingency measures necessary to alleviate impacts from odours emitted from the Facility;
- (3) dust abatement plan to propose the design and operation of the contingency measures to alleviate impacts from dust originating from the waste management and vehicular activities at the Facility;
- (4) trigger mechanism for implementation of the abatement plans required by (2) and (3), above;
- (5) a list of equipment and clean up materials available for dealing with the emergency situations;
- (6) notification protocol with names and telephone numbers of persons to be contacted, including persons responsible for the Facility, the Ministry's District Office and Spills Action Centre, the local fire department, the local municipality, the local Medical Officer of Health, and the Ontario Ministry of Labour, and the names and telephone numbers of waste management companies available for emergency response;
- (7) procedures and actions to be taken should the incoming Biomass not meet the quality criteria specified by this Approval;
- (8) procedures and actions to be taken should the Processed Material fail to meet the Fertilizer quality criteria specified by the CFIA; and
- (9) procedures and actions to be taken should the occurrence of the Substantiated Complaints require the Company to suspend the processing activities at the Facility.

L2. The Emergency Response and Contingency Plan shall be reviewed on an annual basis and updated, if necessary. The revised version of the Emergency Response and Contingency Plan shall be submitted to the District Manager, the local municipality and the local fire department. A copy of the Emergency Response and Contingency Plan shall be kept at the Facility at all times, in a central location available to all staff.

M - EMERGENCY SITUATIONS RESPONSE AND REPORTING

M1. The Company shall immediately take all necessary measures, as outlined in the Emergency Response and Contingency Plan, to handle the emergency situations occurring at the Facility.

- M2. The Company shall ensure that the equipment and materials outlined in the Emergency Response and Contingency Plan are immediately available at the Facility at all times and are in a good state of repair and fully operational.
- M3. The Company shall ensure that all Facility personnel are fully trained in the use of the equipment and materials outlined in the Emergency Response and Contingency Plan, and in the procedures to be employed in the event of an emergency.
- M4. Should a spill, as that term is defined in the Act, occur at the Facility, in addition to fulfilling the requirements under the Act, the Company shall:
- (1) immediately report the spill to the **Ministry's Spills Action Centre at 1-800-268-6060**;
 - (2) create a written record outlining the nature and cause of the spill, remedial measures taken, and measures taken to prevent a similar occurrence in the future; and
 - (3) provide the District Manager with the written record created under (2) within three (3) calendar days of the occurrence of the spill.

N - RECORD KEEPING AND RETENTION

Daily Activities

- N1. The Company shall establish and maintain an on-site written or digital record of activities undertaken at the Facility. All measurements shall be recorded in consistent metric units of measurement. The record shall include, as a minimum, the following:
- (1) date of record;
 - (2) quantity and type of waste received at the Facility, including incoming waste analysis results;
 - (3) quantity and type of waste shipped from the Facility, including outgoing waste analysis results;
 - (4) amount of Fertilizer shipped from the Facility;
 - (5) amount of Processed Organic Waste and/or NASM shipped from the Facility;
 - (6) quantity and type of waste processed at the Facility;
 - (7) quantity and type of waste stored at the Facility, including the Biomass levels in the storage tanks;
 - (8) receiving site(s) and their Environmental Compliance Approval numbers, for the waste shipped from the Facility;
 - (9) quantity and type of any Rejected Waste and Residual Waste;
 - (10) process monitoring results;
 - (11) housecleaning activities;
 - (12) all records on the maintenance, repair and inspection of the Equipment; and
 - (13) all records on the monitoring activities of the Activated Carbon Adsorption Units as required by this Approval.

Emergency Situations

- N2. The Company shall establish and maintain an on-site written or digital record of emergency situations. The record shall include, as a minimum, the following:
- (1) the type of emergency situation;
 - (2) description of how the emergency situation was handled;

- (3) the type and amount of material spilled, if applicable;
- (4) a description of how the material was cleaned up and stored, if generated; and
- (5) the location and time of final disposal, if applicable.

Inspections

- N3. The Company shall establish and maintain an on-site written or digital record of inspections as required by this Approval. The record shall include, as a minimum, the following:
- (1) the name and signature of the person that conducted the inspection;
 - (2) the date and time of the inspection;
 - (3) the list of any deficiencies discovered;
 - (4) the recommendations for remedial action; and
 - (5) the date, time and description of actions taken.
- N4. The Company shall establish and maintain an on-site written or digital record of the results of sediment trap inspections and any cleaning and maintenance operations undertaken. The record shall include the following:
- (1) the date and results of each inspection, maintenance and cleaning, including an estimate of the quantity of sediment in the sediment trap and of any materials removed; and
 - (2) Name of the waste hauler, quantity of sediments removed from the sediment trap and destination for disposal of sediments.

Training

- N5. The Company shall establish and maintain an on-site written or digital record of training as required by this Approval. The record shall include, as a minimum, the following:
- (1) date of training;
 - (2) name and signature of person who has been trained; and
 - (3) description of the training provided.

Sampling and Testing Records

- N6. The Company shall establish and maintain a written or digital record of all sampling and testing activities at the Facility. This record shall include, as a minimum, the following information:
- (1) waste sampled, sample collection locations and volume collected;
 - (2) day and time of collection;
 - (3) sample handling procedures;
 - (4) parameters tested for and the resulting concentrations;
 - (5) name of the laboratory facility conducting the testing; and
 - (6) conclusions drawn with respect to the results of the sampling and testing.

Monitoring Records

- N7. The Company shall establish and maintain a written or digital record of all monitoring activities at the Facility as required by this Approval.

Complaints Response Records

- N8. The Company shall establish and maintain a written or digital record of any complaint alleging an Adverse Effect caused by the construction, installation, use, operation, maintenance or retirement of the Facility. The record shall include:
- (1) a description of the complaint that includes as a minimum the following:
 - (a) the date and time the complaint was made;
 - (b) the name, address and contact information of the person who submitted the complaint;
 - (2) a description of each incident to which the complaint relates that includes as a minimum the following:
 - (a) the date and time of each incident;
 - (b) the duration of each incident;
 - (c) waste management activities undertaken at the time of the complaint;
 - (d) general meteorological conditions including, but not limited to, the ambient temperature, approximate wind speed and direction, sunny versus cloudy, inversion versus clear and windy, at the time of each incident;
 - (e) the location of the person who submitted the complaint at the time of each incident; and
 - (3) a description of the measures taken to address the cause of each incident to which the complaint relates and to prevent a similar occurrence in the future.

Records Retention

- N9. The Company shall retain, for a minimum of five (5) years from the date of their creation, all records described in Condition N1, and make these records available for review by the Ministry upon request.

Annual Report

- N10. By March 31st following the end of each operating year, the Company shall prepare and submit to the District Manager an annual report summarizing the operation of the Facility covering the previous calendar year. The annual report shall include, as a minimum, the following information:
- (1) a signed statement that the Facility was operated and maintained in compliance with this Approval;
 - (2) a monthly summary of the quality and the quantity of all incoming Biomass and outgoing Processed Organic Waste, NASM, Residual Waste and Rejected Waste, including analytical data required to characterize the waste;
 - (3) material balance for each month documenting the amount of Biomass stored at the Facility;
 - (4) a monthly summary of the quality and the quantity of the Fertilizer shipped from the Facility;
 - (5) a monthly summary of the quality and the quantity of the Processed Organic Waste and/or NASM, managed in accordance with the requirements of the EPA and/or the NMA, shipped from the Facility;
 - (6) 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;
 - (7) any recommendations to minimize environmental impacts from the operation of the Facility and to improve Facility operation and monitoring programs in this regard;
 - (8) a summary of any complaints received and follow up actions taken;

- (9) a summary of any emergency situations that have occurred at the Facility and how they were handled;
- (10) an update on the amount of Financial Assurance which has been provided to the Director;
- (11) a summary of all inspections and maintenance carried out at the Facility; and
- (12) any other information the District Manager requires from time to time.

SCHEDULE “A”
Facility Description

The Facility shall consist of the construction, installation, operation, use, maintenance and retiring of:

- a Class 3 anaerobic digestion facility, to process 17,000 tonnes of solid and liquid Biomass per year to generate 500 kilowatts of electricity (kW_{el}) and consisting of the following processes and supporting units:
 - (a)
 - i. one (1) hydrolysis receiving tank;
 - ii. one (1) hydrolysis tank;
 - iii. one (1) hydrolysis buffer tank;
 - iv. one (1) pasteurizer receiving tank;
 - v. one (1) pasteurizer tank;
 - vi. one (1) pasteurizer buffer tank;
 - vii. one (1) digester tank;
 - viii. two (2) Liquid Digestate storage vessels; and
 - ix. a concrete pad for storage of Solid Digestate;
 - (b) one (1) biogas treatment system including: one (1) underground gas cooling system to remove moisture before directing it to the generator set described below;
 - (c) one (1) biogas fired reciprocating engine generator, having a generating output capacity of 500 kilowatts of electricity (kW_{el}) and a maximum biogas firing rate of 0.067 standard cubic metre per second, discharging to the air at an approximate volumetric flow rate of 0.60 actual cubic metres per second through a stack, having an exit diameter of 0.15 metre, extending 12.0 metres above grade;
 - (d) one (1) biogas flare, operating during the commissioning period or as a standby biogas combustion control device to the one (1) biogas reciprocating engine or during periods when biogas generation exceeds the capacity of the one (1) biogas reciprocating engine, having a maximum biogas firing rate of 0.11 standard cubic metre per second, discharging to the air through a stack with an exit diameter of 0.41 metre, extending 12.1 metres above grade;
 - (e) one (1) activated carbon adsorption unit complete with a pre-filter section, used to control emissions from the one (1) pasteurizer receiving tank, containing approximately 40 kilograms of activated carbon, discharging to the air passively through a stack;
 - (f) one (1) activated carbon adsorption unit complete with a pre-filter section, used to control emissions from the one (1) pasteurizer tank and one (1) pasteurizer buffer tank, containing approximately 40 kilograms of activated carbon, discharging to the air passively through a stack;

- (g) one (1) activated carbon adsorption unit complete with a pre-filter section, used to control emissions from the one (1) hydrolysis receiving tank, one (1) hydrolysis tank and one (1) hydrolysis buffer tank, containing approximately 40 kilograms of activated carbon, discharging to the air passively through a stack;
- (h) associated ancillary equipment, systems and technologies including, overhead distribution line and roof water storage tank;

all in accordance with the Application.

SCHEDULE B: Noise Control Measures

Phase 1 - Completion prior to commencement of operation of the Equipment

Silencer

One (1) silencer for the Engine Exhaust Stack #1 (Source 1) as described in the Acoustic Assessment Report, capable of providing the following values of Insertion Loss in 1/1 octave band centre frequencies:

Table B1: Minimum Insertion Loss (dB) values in 1/1 octave band centre frequencies for Silencer for Engine Exhaust Stack #1 (Source 1)

Silencer	Octave Band Centre Frequency (Hz)							
	63	125	250	500	1000	2000	4000	8000
Insertion Loss (dB)	46.0	45.0	55.0	56.0	58.0	52.0	50.0	42.0

Phase 2 - Completion not later than 12 months after the issuance of an above grade building permit under the Building Code Act, 1992, for a building on the vacant lands immediately north, south, east and west of the Facility

Acoustic Barriers

- One (1) 66 metres long and 8 metres high acoustic barrier, positioned as per Figure 1 and Table 4 in the Acoustic Assessment Report. The acoustic barrier shall be continuous, without any holes, gaps or other penetrations, and having a surface mass of at least 20 kilograms per square metres; and
- One (1) 141 metres long and 8 metres high acoustic barrier, positioned as per Figure 1 and Table 4 in the Acoustic Assessment Report. The acoustic barrier shall be continuous, without any holes, gaps or other penetrations, and having a surface mass of at least 20 kilograms per square metres.

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

GENERAL

- (1) Conditions A1, A7 and A8 are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in the manner in which it was described for review and upon which Approval was granted. These conditions are also included to emphasize the precedence of conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.
- (2) Conditions A2 and A3 are included to require the Company to provide information to the public and the local municipality.
- (3) Conditions A4, A5, A9, A10, A11, A12, A13, A18, A19, and A20 are included to clarify the legal rights and responsibilities of the Company.
- (4) Condition A6 is included to require the Company to inform the Ministry of the commencement of activities related to the construction, installation, and operation of the Facility.
- (5) Condition A14 is included to ensure that the Facility is operated under the corporate name which appears on the Application submitted for this Approval and to ensure that the Director is informed of any changes.
- (6) Conditions A15 and A16 is included to restrict potential transfer or encumbrance of the Facility 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.
- (7) Condition A17 is included to ensure that the Ministry has ready access to the operations of the Facility. 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.
- (8) Conditions A21, A22, and A23 are included to ensure that the Facility is decommissioned in accordance with the Decommissioning Plan Report approved by the Ministry and that final closure of the Facility is completed in accordance with Ministry's standards.
- (9) Condition B is intended to limit the time period of the Approval.

WATER TAKING, STORMWATER MANAGEMENT AND TEMPORARY EROSION AND SEDIMENT CONTROL, AND NATURAL HERITAGE

- (10) Conditions C, D, and F are included to ensure that the Facility is constructed, installed, used, operated, maintained and retired in a way that does not result in an Adverse Effect or hazard to the natural environment or any persons.

ARCHAEOLOGICAL RESOURCES

- (11) Condition E is included to protect archaeological resources that may be found at the project location.

MUNICIPAL, CONSERVATION AUTHORITY, AND PARKS CANADA CONSULTATION

- (12) Condition G is included to ensure continued communication between the Company and the Municipality, Conservation Authority, and Parks Canada.

AIR AND NOISE

- (13) Conditions H1, H2, H3, H4, H5, and H6 are included to emphasize that the Equipment/Facility must be maintained and operated according to a procedure that will result in compliance with the EPA, the Regulations and this Approval.
- (14) Condition H7 is included to provide the minimum performance requirement considered necessary to prevent an Adverse Effect resulting from the operation of the Facility.
- (15) Conditions H8 and H9 are included to require the Company to gather accurate information and submit an Acoustic Audit Report in accordance with procedures set in the Ministry's noise guidelines, so that the environmental impact and subsequent compliance with this Approval can be verified.

BIOMASS MANAGEMENT

BUILD IN ACCORDANCE AND AS-BUILT DRAWINGS

- (16) Conditions I1, I2, and I3 are included to ensure that the Facility is operated in accordance with the Application and not in a manner which the Director has not been asked to consider.

FINANCIAL ASSURANCE

- (17) Conditions I4, I5, I6, and I7 is included to ensure that sufficient funds are available to the Ministry to clean up the Facility in the event that the Company is unable or unwilling to do so.

COMPLAINTS RESPONSE PROCEDURE

- (18) Condition I8 is included to require the Company to respond to any environmental complaints regarding the operation of the Facility, according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.

SERVICE AREA, APPROVED WASTE TYPES, RATES & STORAGE

- (19) Conditions I9, I10, I11, and I12 are included to specify the approved Biomass receipt rate and the approved Biomass types and the service area from which Biomass may be accepted at the Facility based on the Company's Application. Condition I12 is also included to specify the maximum amount of waste that is approved to be stored at the Facility that is covered by the required financial assurance.

SIGNS

- (20) Conditions I13 and I14 are included to ensure that the Facility's users, operators and the public are fully aware of important information and restrictions related to the operation of the Facility.

FACILITY SECURITY

- (21) Conditions I15, I16, and I17 are included to ensure that the Facility is sufficiently secured, supervised and operated by properly trained personnel and to ensure controlled access and integrity of the Facility by preventing unauthorized access when the Facility is closed and no Facility personnel are on duty.

FACILITY OPERATIONS

- (22) Condition I18 is included to specify the hours of operation for the Facility to ensure that the hours of the Facility's operations do not result in an Adverse Effect or hazard to the natural environment or any persons.
- (23) Conditions I19, I22, and I23 are included to ensure that waste handling and storage are undertaken in a way which does not result in an Adverse Effect or hazard to the natural environment or any persons.
- (24) Condition I20 is included to ensure that only the approved waste types are accepted and processed at the Facility.
- (25) Condition I21 is included to specify the requirements for handling of the Rejected Waste that was inadvertently received at the Facility.
- (26) Condition I24 is included to specify odour control measures to minimize the potential for odour emissions from the Facility.

FACILITY INSPECTION AND MAINTENANCE

- (27) Conditions I25, I26, I27, and I28 are included to require the Facility to be maintained and inspected thoroughly and on a regular basis to ensure that the operations at the Facility are undertaken in a manner which does not result in an Adverse Effect or hazard to the natural environment or any persons.

QUALITY CRITERIA / TESTING / MONITORING

- (28) Conditions I29, I30, I31, I32, I33, I34, I35, I36, and I37 are included to require all Biomass received at the Facility and shipped from the Facility to be characterized so that only Biomass approved by this Approval is handled at the Facility and that all waste transferred off-site is handled in accordance with the Ministry's requirements.

END USE OF PROCESSED MATERIAL

- (29) Conditions I38, I39, I40, I41, I42, I43, I44, and I45 are included to ensure that all processed Biomass is 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 HOUSEKEEPING

- (30) Conditions I46, I47, I48, I49, and I50 are included to ensure that the Facility is operated and maintained in an environmentally acceptable manner which does not result in an Adverse Effect or hazard to the natural environment or any persons.

OPERATIONS MANUAL AND TRAINING

- (31) Conditions J and K are included to ensure that personnel employed at the Facility are fully aware and properly trained on the requirements and restrictions related to the Facility operations under this Approval.

EMERGENCY RESPONSE AND CONTINGENCY PLAN AND EMERGENCY SITUATIONS RESPONSE AND REPORTING

- (32) Condition L is included to ensure that the Company is prepared and properly equipped to take action in the event of an emergency situation.
- (33) Condition M is included to require further spill notification to the Ministry, in addition to the requirements already listed in Part X of the Act.

RECORD KEEPING AND RETENTION

- (34) Condition N is included to ensure that detailed records of Facility activities, inspections, monitoring and upsets are recorded and maintained for inspection and information purposes.

NOTICE REGARDING HEARINGS

In accordance with Section 139 of the Environmental Protection Act, within 15 days after the service of this notice, you may by further written notice served upon the Director, the Environmental Review Tribunal and the Environmental Commissioner, require a hearing by the Tribunal.

In accordance with Section 47 of the Environmental Bill of Rights, 1993, the Environmental Commissioner will place notice of your request for a hearing on the Environmental Registry.

Section 142 of the Environmental Protection Act provides that the notice requiring the hearing shall state:

1. The portions of the renewable energy approval or each term or condition in the renewable energy approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The signed and dated notice requiring the hearing should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The renewable energy approval number;
6. The date of the renewable energy approval;
7. The name of the Director;
8. The municipality or municipalities within which the project is to be engaged in;

This notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario
M5G 1E5

AND

The Environmental Commissioner
1075 Bay Street, 6th Floor
Suite 605
Toronto, Ontario
M5S 2B1

AND

The Director
Section 47.5, *Environmental Protection Act*
Ministry of the Environment and Climate
Change
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

Under Section 142.1 of the Environmental Protection Act, residents of Ontario may require a hearing by the Environmental Review Tribunal within 15 days after the day on which notice of this decision is published in the Environmental Registry. By accessing the Environmental Registry at www.ebr.gov.on.ca, you can determine when this period ends.

Approval for the above noted renewable energy project is issued to you under Section 47.5 of the Environmental Protection Act subject to the terms and conditions outlined above.

DATED AT TORONTO this 27th day of August, 2015



Ian Greason, P.Eng.

Director
Section 47.5, *Environmental Protection Act*

IG/
c: District Manager, MOECC Toronto - District
Clare Riepma, Riepma Consultants Inc.