Ontario

Ministry of the Environment, Conservation and Parks
Ministère de l'Environnement, de la Protection de la nature et des Parcs

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 9501-BG3JPF
Issue Date: June 10, 2020

The Corporation of the City of Stratford
82 Erie St
Stratford, Ontario
N5A 2M4

Site Location: Stratford Water Pollution Control Plant (WPCP)
701 West Gore Street
Stratford City, County of Perth
N5A 6W1

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 multimedia approval of:

Stratford Water Pollution Control Plant (Sewage Treatment Plant and Waste Processing Facility)

alteration, usage and operation of municipal works for the treatment of sanitary sewage and processing of waste as follows:

Classification of Sewage Collection System: Separate Sewer System

Classification of Sewage Treatment Plant: Tertiary

Design Capacity of Sewage Treatment Plant

Design Capacity with all Treatment Trains in Operation	Prior to Completion of Construction of All Proposed Works	Upon Completion of Construction of All Proposed Works
Rated Capacity	30,660 m^3/d	30,660 m^3/d

Design Capacity of Waste Processing Facility

Waste Type	Design Capacity
Solid Organic Waste Receipt Rate	20,900 tonnes/year
Liquid Organic Waste Receipt Rate	5,000 tonnes/year
Digestate Production Rate	65,100 tonnes/year
Biogas Production Rate	3,600,000 m^3/year

Influent, Incoming Waste, Effluent, and Outgoing Waste

Receiving Location	Types
In Sewage Collection System	Sanitary Sewage
Water Pollution Control Plant	Solid or liquid organic waste limited to residential, industrial, commercial and institutional waste derived from plants or animals listed in Paragraph 1 of Condition 21, all readily biodegradable and generated within the Province of Ontario
Receiver of Effluent Discharge	Avon River
Outgoing Digestate	Hauler Approved by the Ministry or Registered on the Environmental Activity and Sector Registry, as required
Outgoing Renewable Natural Gas	Natural Gas Distribution Infrastructure

Note: Use of the Stratford Water Pollution Control Plant 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.

Proposed Works:

Sewage Treatment Plant

Sludge Hydrolysis

- three (3) outdoor Hydrolysis Tanks operating in series, used for the temporary storage and hydrolysis of sludge originating from the Sewage Treatment Plant, each having a capacity of 40 m^3, discharging odourous air to the Biogas Upgrading System described below;

Stormwater Management

- one (1) vegetated filter strip (catchment area of 0.49 hectares) with a 0.15 m deep level spreader,

located south-east of the Wet Weather Flow Equalization Tanks, having a maximum length of 135 m and a width of 5 m, receiving stormwater runoff from the access road to the Receiving Building, discharging to the vegetated swale identified below;

- one (1) vegetated swale (catchment area of 0.37 hectares), located along the east side of the Wet Weather Flow Equalization Tanks, with 0.75 to 3 m bottom widths, 3:1 side slopes and longitudinal slopes of 0.7%, complete with an outlet control structure consisting of a 150 mm diameter orifice at an elevation of 348.06 m and a 450 mm diameter overflow orifice at an elevation of 348.61 m, discharging to Avon River via a 450 mm diameter culvert at a maximum discharge rate of 270 L/s under the 100-year storm event;

Waste Processing Facility

- replacement of the existing Sludge Management System with a Waste Processing Facility, to receive and process solid and liquid organic waste to be co-digested with the sludge generated at the Sewage Treatment Plant to generate gaseous outputs to be upgraded into renewable natural gas and digestate, and consisting of the following processes and equipment:

Receiving Building

- one (1) fully enclosed Receiving Building to be used for the receipt, temporary storage and pre-treatment of solid organic waste to produce the organic waste slurry and to remove its packaging and other non-biodegradable constituents, equipped with one (1) ventilation system that maintains negative pressure in the fully enclosed Receiving Building, including a ventilation rate of four and a half (4.5) air changes per hour in the Receiving Hall, extracting air from the areas including but not limited to the bay doors, reception area, tipping floor area, solid waste storage area, pre-processing area, residue/reject collection and load-out area, light fraction screenings storage area, and reception floor sump, then discharging odourous air through the Photoionization System described below;

Receiving Building Tank Yard

- one (1) outdoor Liquid Waste Reception Tank used for the receipt and temporary storage of the liquid organic waste, having a capacity of 50 m^3, discharging odourous air to the Photoionization System described below;

- one (1) outdoor Buffer Storage Tank used for the temporary storage of the organic waste slurry from the Receiving Building mixed with liquid organic waste from the Liquid Waste Reception Tank, having a capacity of 500 m^3, discharging odourous air to the Biogas Upgrading System described below;

- three (3) outdoor Pasteurization Tanks operating in parallel, used to pasteurize the organic waste slurry from the Buffer Storage Tank combined with liquid organic waste from the Liquid Waste Reception Tank and with sludge from the three (3) Hydrolysis Tanks prior to anaerobic digestion, each having a capacity of 4 m^3, discharging odourous air to the Biogas Upgrading System

described below;

Anaerobic Digesters and Digestate Storage Tank

- modification of two (2) existing anaerobic digester tanks for operation as two (2) Anaerobic Digesters used for the primary anaerobic biodegradation of the organic waste slurry combined with sludge post-pasteurization, each having a capacity of 1,600 m^3. One digester tank is equipped with a fixed-roof for the collection of biogas and the other digester tank is equipped with a floating-roof for expansion with biogas generation;

- modification of one (1) existing sludge storage tank to be used as one (1) Digestate Storage Tank for the temporary storage of digestate and the loading of digestate into tanker trucks for transport to its land application destination, including the covering of some existing tank openings, having a capacity of 2,850 m^3 and discharging the tank headspace through the Post Digestate Skid Odour Treatment System;

- repurposing of the two (2) sludge recirculation pumps, each rated at 50 L/s at 20 m TDH;.

- repurposing of the two (2) sludge transfer/loading pump, each rated at 50 L/s at 20 m TDH and 32 L/s at 18.3 m TDH;

- additional ferrous chloride dosing points at the two (2) Anaerobic Digesters and one (1) Buffer Storage Tank;

- repurposing of one (1) existing 1,520 m^3 sludge storage lagoon to be used as a 1,520 m^3 detention pond for emergency spill containment from the two (2) Anaerobic Digesters and the one (1) Digestate Storage Tank;

Post Digestion Screen Enclosure

- one (1) enclosed screw press used for the screening of the digestate to remove remaining inorganic constituents, equipped with one (1) ventilation system serving the post digestion screw press screening enclosure at a ventilation rate of six (6) air changes per hour, drawing air from the screw press system used for the screening of the digestate, discharging odourous air to the Post Digestate Skid Odour Treatment System;

Photoionization System

- one (1) Photoionization System, consisting of three photoionization units operating in parallel (two units designed at full load, allowing for downtime of one unit for maintenance), used to control emissions from the fully enclosed Receiving Building and the Liquid Waste Reception tank. Each photoionization unit is complete with a dust filter, a UV-compartment and a catalyst chamber. The Photoionization System operates with two (2) induced draft fans (one duty, one standby), discharging to the air at a maximum volumetric flow rate of 9.72 m^3/s through a stack,

having an exit diameter of 0.79 m, extending 3.2 m above the roof and 16.2 m above grade;

Post Digestate Skid Odour Treatment System

- one (1) Post Digestate Skid Odour Treatment System, consisting of one photoionization unit, used to control emissions from the Digestate Storage Tank and Post Digestion Screen Enclosure. The photoionization unit is complete with a dust filter, a UV-compartment and a catalyst chamber. The Post Digestate Skid Odour Treatment System discharges to the air at a maximum volumetric flow rate of 0.12 m^3/s through a stack, having an exit diameter of 0.79 m, extending 3.2 m above the roof and 6.8 m above grade;

Biogas Upgrading System

- one (1) Biogas Upgrading System, used for treatment of the biogas originating from the two (2) Anaerobic Digesters and the odourous air from one (1) Buffer Storage Tank, three (3) Hydrolysis Tanks and three (3) Pasteurization Tanks, to upgrade the biogas/odourous air mixture into Renewable Natural Gas for injection into the natural gas distribution infrastructure. The Biogas Upgrading System consists of biogas/odourous air mixture conditioning, followed by compression and upgrading. The biogas/odourous air mixture conditioning includes dehumidification (by cooling the gas) for moisture and ammonia removal, followed by biogas/odourous air mixture compression and two (2) activated carbon filters operating in series for the desulphurization and for the removal of siloxanes and volatile organic compounds in combination with particulate filters to remove particulates. After biogas/odourous air mixtrure conditioning, the biogas/odourous air mixture is compressed to high pressure, cooled and then passed through a three-stage membrane separation system to separate methane from other constituents. The Biogas Upgrading System is equipped with a continuous emission monitoring system to monitor hydrogen sulphide concentration before biogas/odourous air mixture conditioning (on the raw biogas/odourous air mixture), between each activated carbon filter and after biogas/odourous air mixture conditioning (entrance of membrane separation unit). The off-gas from the Biogas Upgrading System discharges to the air at a maximum volumetric flow rate of 0.03 m^3/s, through a stack having an exit diameter of 0.15 m;

Biogas Flare

- replacement of one (1) existing digester gas flare with one (1) Biogas Flare of larger capacity, operating as a standby biogas/odourous air mixture combustion control device during periods when the Biogas Upgrading System is down or when biogas/odourous air mixture generation exceeds the capacity of the Biogas Upgrading System or when the natural gas distribution infrastructure is unable to accept the upgraded biogas/odourous air mixture. The Biogas Flare has a maximum biogas/odourous air mixture burning capacity of 450 normal m^3/hour, discharging to the air through a stack, having an exit diameter of 0.30 m, extending 4.0 m above grade;

Existing Works:

Sewage Treatment Plant

Influent Sewers

- 825 mm diameter and 1,500 mm diameter inlet sewer sections from the Forman/O'Loane and Erie/Brydges/Worsley trunk sewers to the raw sewage lift station;

Raw Sewage Lift Station

- three (3) screw pumps (one standby), each rated at 427 L/s, to handle peak dry weather flows;
- one (1) screw pump, rated at 2,600 L/s, to handle wet weather flows;
- a 1,800 mm diameter sewer from the raw sewage lift station to the junction chamber;

Imported Waste Holding Tanks

- two (2) 24.7 m diameter x 3.2 m SWD holding tanks (formerly primary clarifiers), each 1,500 m^3 capacity, to be used for receiving and holding of imported sewage to be co-processed at the Sewage Treatment Plant, with the flexibility to be used as primary clarifiers during planned maintenance activities or as wet weather flow holding tanks for emergency situations;

Wet Weather Flow Management System

- a flow distribution chamber to distribute wet weather flows to the wet weather flow equalization tanks;

Wet Weather Flow Equalization Tank No. 1

- one (1) 22 m x 38 m x 4.5 SWD wet weather flow equalization tank, complete with sediment flushing system;

Wet Weather Flow Equalization Tank No. 2

- one (1) 22 m x 38 m x 4.5 SWD wet weather flow equalization tank, with baffle walls to provide additional function as a disinfection facility for emergency wet weather overflow prior to discharge to Avon River, complete with sediment flushing system;
- an inlet sewer from the equalization tanks distribution chamber to the wet weather flow equalization tank No.2, complete with sluice gates in the inlet sewer;
- a 300 mm diameter outlet sewer connecting to the inlet sewer to the raw sewage lift station;

Wet Weather Overflow Disinfection

Chlorination

- two (2) 15,000 L sodium hypochlorite storage tanks;
- four (4) metering pumps (one standby), each rated at 13.4 L/min, to dose chemical to the inlet chamber of the wet weather flow equalization tank No. 2, equipped with an in-line mixer, and to the backup dosing point at the equalization tanks distribution chamber;

Dechlorination

- one (1) 3,000 L capacity sodium bisulphite storage tanks;
- two (2) metering pumps (one standby), each rated at 4.0 L/min, to dose chemical to the discharge channel of the wet weather flow equalization tank No. 2, equipped with an in-line mixer, and to the backup dosing point at the bypass channel of the wet weather flow equalization tank No. 2;

Preliminary Treatment System

- influent flow metering by a rectangular weir;
- one (1) 6.1 m x 6.1 m detritor, with a Peak Instantaneous Flow Rate of 450 L/s;
- two (2) mechanical bar screens, each with a Peak Instantaneous Flow Rate of 450 L/s;
- one (1) dewatering screw auger;

Influent Flow Measurement and Sampling Point

- flow measurement device at downstream of bar screen;
- automatic composite sampler at downstream of bar screen;

Primary Treatment Systems

- one (1) primary influent distribution chamber;
- two (2) 24.7 m diameter x 3.2 m SWD primary clarifiers, each with a Peak Daily Flow Rate of 36,503 m^3/d, equipped sludge and scum removal mechanisms;
- two (2) primary sludge pumps (one standby), each rated at 10 L/s at 20 m TDH;

- one (1) primary clarifier dewatering pump, each rated at 50 L/s at 20 m TDH;
- three (3) primary effluent pumps (one standby), each rated at 210 L/s at 7.5 m TDH;

Secondary Treatment Systems

- Biological Treatment
  - four (4) 38.5 m x 14.4 m x 4.8 m SWD three-pass aeration tanks, each equipped with an anoxic zone baffle and fine bubble aeration system;
  - three (3) air blowers (one standby), each rated at 6,260 m^3/h at 56 kPa;
- Secondary Sedimentation
  - three (3) 24.4 m diameter x 3.6 m SWD secondary clarifiers, equipped with sludge removal mechanisms;
  - four (4) return activated sludge (RAS)/ waste activated sludge (WAS) pumps (two standby), each rated at 237 L/s at 9.5 m TDH;

Supplementary Treatment Systems

- Phosphorus Removal
  - two (2) 35,000 L chemical storage tanks;
  - three (3) metering pumps (two standby), each rated at 17 to 473 L/h with dual point dosing to the aeration inlet chamber and screw pumps (filter building);

Post-Secondary Treatment System

- four (4) 7.92 m x 3.96 m x 4.9 m depth dual media filters providing a total area of 95 m^2;

Disinfection System

- UV Irradiation
  - one (1) UV disinfection system comprising three (3) banks (two in lead and lag operational mode and the third as standby), each having a Peak Hourly Flow Rate of 763 m^3/h and with twenty-one (21) modules with eight (8) lamps per module;

Final Effluent Flow Measurement and Sampling Point

- an ultrasonic meter and transducer to measure effluent flows over the UV disinfection control weir;

- automatic composite sampler downstream of UV disinfection system;

Sludge Management System (To be replaced with the Waste Processing Facility)

- Sludge Digestion

  - one (1) 16.5 m diameter x 8.0 m SWD primary anaerobic sludge digester, equipped with gas mixing;

  - one (1) 16.5 m diameter x 8.0 m SWD secondary anaerobic sludge digester;

  - two (2) sludge recirculation pumps, each rated at 50 L/s at 20 m TDH;

  - two (2) sludge transfer/loading pump, each rated at 50 L/s at 20 m TDH and 32 L/s at 18.3 m TDH;

- Sludge Storage

  - one (1) 2,850 m^3 sludge storage tank;

  - one (1) 1,520 m^3 sludge storage lagoon;

Final Effluent Disposal Facilities

- one (1) 900 mm diameter effluent sewer from the outlet of the UV disinfection channel discharging to Avon River;

including all other mechanical system, electrical system, instrumentation and control system, standby power system, piping, pumps, valves and appurtenances essential for the proper, safe and reliable operation of the Works in accordance with this Approval, in the context of process performance and general principles of wastewater engineering only;

all in accordance with the submitted supporting documents listed in Schedule A.

For the purpose of this environmental compliance 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 dated July 19, 2019 and signed by Michael Masschaele, GHD;

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. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a Facility;

4. "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;

5. "Annual Average Daily Influent Flow" means the cumulative total sewage flow of Influent to the Sewage Treatment Plant during a calendar year divided by the number of days during which sewage was flowing to the Sewage Treatment Plant that year;

6. "Approval" means this environmental compliance approval and any schedules attached to it, and the application;

7. "Biogas" means the gaseous waste generated from microbial biodegradation of biodegrable organic wastes and Sludge conducted under anaerobic conditions and has the physical attributes and the chemical composition, in particular the methane and carbon dioxide content, of a gas considered to be a biogas by the biogas industry;

8. "Biogas Flare" means the biogas/odourous air mixture 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;

9. "Biogas Upgrading System" means the system used for treatment and upgrading of biogas/odourous air mixture into Renewable Natural Gas, as described in the Owner's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval;

10. "Biosolids" within the context of this Approval, means the organic materials resulting from treatment of sewage at a site including treatment in an anaerobic digester;

11. "Biowaste" means solid and liquid non-hazardous readily biodegradable waste and suitable for microbial biodegradation of biodegrable organic wastes conducted under anaerobic conditions. Biowaste includes SSO but excludes the waste types listed in Paragraph 1 of Condition 37;

12. "BOD5" (also known as TBOD5) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demands;

13. "Bypass" means diversion of sewage around one or more treatment processes, excluding Preliminary Treatment System, within the Sewage Treatment Plant with the diverted sewage flows being returned to the Sewage Treatment Plant treatment train upstream of the Final Effluent sampling point(s) and discharged via the approved effluent disposal facilities;

14. "CBOD5" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;

15. "CFIA" means the Canadian Food Inspection Agency;

16. "Digestate" is a processed organic waste as defined in Regulation 347 and within the context of this Approval it means the output from anaerobic digestion processing (biodegradation) of the Biowaste and the Sludge at the WPCP, prior to and/or following the post-digestion screening step;

17. "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;

18. "District Manager" means the District Manager of the appropriate local district office of the Ministry where the Works is geographically located;

19. "E. coli" refers to the thermally tolerant forms of Escherichia that can survive at 44.5 degrees Celsius;

20. "EASR" means the Environmental Activity and Sector Registry;

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

22. "Equipment" means the equipment described in the Owner's application, this Approval and in the supporting documentation submitted with the application, to the extent approved by this Approval;

23. "Equivalent Equipment" means alternate piece(s) of equipment that meets the design requirements and performance specifications of the piece(s) of equipment to be substituted;

24. "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 Matthew Griffin, P.Eng. / GHD and dated May 24, 2019 submitted in support of the application including any addendum submissions made during the Ministry’s review of the Owner’s application;

25. "Event" means an action or occurrence, at a given location within the Works that causes a Bypass or Overflow. An Event ends when there is no recurrence of Bypass or Overflow in the 12-hour period following the last Bypass or Overflow. Overflows and Bypasses are separate Events even when they occur concurrently;

26. "Exhausted" means the capacity of the carbon catalysts (in the Photoionization Units) and the activated carbon media (in the Biogas Upgrading System) to adsorb contaminant emissions is reached, and the carbon catalysts (in the Photoionization Units) and the activated carbon media (in the Biogas Upgrading

System) are no longer able to effectively reduce emissions;

27. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;

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

29. "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* ;

30. "Fertilizers Act" means the *Fertilizers Act* , R.S., 1985, c-F-10, as amended;

31. "Final Effluent" means effluent that is discharged to the environment through the approved effluent disposal facilities, including all Bypasses, that are required to meet the compliance limits stipulated in the Approval for the Sewage Treatment Plant at the Final Effluent sampling point(s);

32. "IC&I" means industrial, commercial and institutional;

33. "Imported Sewage" means sewage hauled to the Sewage Treatment Plant by licensed waste management system operators of the types and quantities approved for co-treatment in the Sewage Treatment Plant, including hauled sewage and leachate within the meaning of R.R.O. 1990, Regulation 347: General – Waste Management, as amended;

34. "Independent Acoustical Consultant" means an Acoustical Consultant not representing the Owner, and not involved in the noise impact assessment or the design/implementation of Noise Control Measures for the Facility/Equipment. The Independent Acoustical Consultant shall not be retained by the consultant involved in the noise/vibration impact assessment or the design/implementation of noise/vibration control measures for the Facility/Equipment;

35. "Influent" means flows to the Sewage Treatment Plant from the collection system but excluding process return flows;

36. "Limited Operational Flexibility" (LOF) means the conditions that the Owner shall follow in order to undertake any modification that is pre-authorized as part of this Approval. LOF is limited to the modifications of Sewage Works;

37. "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 fully enclosed Receiving Building, excluding failures that may be caused in part by poor maintenance or negligent operation;

38. "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;

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

40. "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;

41. "Monthly Average Effluent Concentration" is the mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month, calculated and reported as per the methodology specified in Schedule F;

42. "Monthly Average Daily Effluent Flow" means the cumulative total Final Effluent discharged during a calendar month divided by the number of days during which Final Effluent was discharged that month;

43. "Monthly Average Daily Effluent Loading" means the value obtained by multiplying the Monthly Average Effluent Concentration of a contaminant by the Monthly Average Daily Effluent Flow over the same calendar month;

44. "Monthly Geometric Mean Density" is the mean of all Single Sample Results of E.coli measurement in the samples taken during a calendar month, calculated and reported as per the methodology specified in Schedule F;

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

46. "Noise Abatement Action Plan" means the noise abatement program developed by the Owner, submitted to the Director and District Manager and approved by the Director, designed to achieve compliance with the sound level limits set in Publication NPC-300, as applicable;

47. "Noise Control Measures" means measures to reduce the noise emissions from the Facility and/or Equipment including, but not limited to, silencers, acoustic louvers, enclosures, absorptive treatment, plenums and barriers. It also means the Noise Control Measures detailed in the Acoustic Assessment Report dated July 19, 2019 and signed by Michael Masschaele, GHD;

48. "Normal Operating Condition" means the condition when all unit process(es), excluding Preliminary Treatment System, in a treatment train is operating within its design capacity;

49. "O. Reg. 419/05" means Ontario Regulation 419/05, Air Pollution – Local Air Quality, as amended;

50. "O. Regulation 267/03" means *Ontario Regulation 267/03, General,* made under the NMA, as amended;

51. "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 50 of this approval;

52. "Off-Farm Anaerobic Digestion Materials" is as defined in O. Regulation 267/03 and Regulation 347, and within the context of this Approval it means the non-agricultural Biowaste destined for the Anaerobic

Digesters at the WPCP;

53. "Operating Agency" means the Owner or the entity that is authorized by the Owner for the management, operation, maintenance, or alteration of the Works in accordance with this Approval;

54. "Overflow" means a discharge to the environment from the Works at designed location(s) other than the approved effluent disposal facilities or via the effluent disposal facilities downstream of the Final Effluent sampling point;

55. "Owner" means The Corporation of the City of Stratford and its successors and assignees;

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

57. "PA" means the *Pesticides Act* , R.S.O. 1990, c. P-11, as amended;

58. "Peak Daily Flow Rate" (also referred to as maximum daily flow or maximum day flow) means the largest volume of flow to be received during a one-day period for which the sewage treatment process unit or equipment is designed to handle;

59. "Peak Hourly Flow Rate" (also referred to as maximum hourly flow or maximum hour flow) means the largest volume of flow to be received during a one-hour period for which the sewage treatment process unit or equipment is designed to handle;

60. "Peak Instantaneous Flow Rate" means the instantaneous maximum flow rate as measured by a metering device for which the sewage treatment process unit or equipment is designed to handle;

61. "Photoionization System" means the photoionization 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;

62. "Photoionization Units" means the photoionization units serving the Photoionization System and the Post Digestate Skid Odour Treatment 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;

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

64. "Post Digestate Skid Odour Treatment System" means the post digestate skid odour treatment 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;

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

66. "Preliminary Treatment System" means all facilities in the Sewage Treatment Plant associated with

screening and grit removal;

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

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

69. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;

70. "Publication NPC-103" means Publication NPC-103, Procedures , August 1978;

71. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;

72. "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;

73. "Rated Capacity" means the Annual Average Daily Influent Flow for which the Sewage Treatment Plant is designed to handle;

74. "Receiving Building" means the enclosed building located at the WPCP where the solid Biowaste is to be received, pre-processed and temporarily stored prior to transfer to the Buffer Storage Tank;

75. "Receiving Hall" means the waste reception area, tipping floor area, solid waste storage area, pre-processing area, residue/reject collection and load-out area, and light fraction screenings storage area, all located within the Receiving Building;

76. "Regulation 347" means Regulation 347, R.R.O. 1990, General - Waste Management, made under the EPA, as amended;

77. "Rejected Waste" means the incoming load inadvertently received at the WPCP and deemed by the Owner to be waste that does not meet the incoming Biowaste quality criteria set out in this Approval or that cannot be processed;

78. "Renewable Natural Gas" means the Biogas upgraded in the Biogas Upgrading System and destined for injection into natural gas distribution infrastructure;

79. "Residual Waste" means waste resulting from the management of the Biowaste at the WPCP and destined for further management at an off-site location or final disposal;

80. "Revised Noise Abatement Action Plan" means the updated Noise Abatement Plan developed by the Owner, submitted to the Director and District Manager and approved by the Director, designed to manage

and achieve compliance with the sound level limits set in Publication NPC-300;

81. "Sanitary Sewers" means pipes that collect and convey wastewater from residential, commercial, institutional and industrial buildings, and some infiltration and inflow from extraneous sources such as groundwater and surface runoff through means other than stormwater catch basins;

82. "Schedules" means the following schedules attached to this Approval and forming part of this Approval namely:

- Schedule A - Supporting Documentation;
- Schedule B - Final Effluent Design Objectives;
- Schedule C - Final Effluent Compliance Limits;
- Schedule D - Monitoring Program;
- Schedule E - Limited Operational Flexibility;
- Schedule F - Methodology for Calculating and Reporting Monthly Average Effluent Concentration, Annual Average Effluent Concentration and Monthly Geometric Mean Density;
- Schedule G - Municipal and Local Services Board Wastewater System Profile Information Form
- Schedule H - Procedure to Calculate and Record the 10-minute Average Concentration of Odour; and
- Schedule I - Source Testing Procedures;

83. "Sensitive Receptor" means any location where routine or normal activities occurring at reasonably expected times would experience adverse effect(s) from odour discharges from the Facility, including one or a combination of:

    a. private residences or public facilities where people sleep (e.g.: single and multi-unit dwellings, nursing homes, hospitals, trailer parks, camping grounds, etc.),

    b. institutional facilities (e.g.: schools, churches, community centres, day care centres, recreational centres, etc.),

    c. outdoor public recreational areas (e.g.: trailer parks, play grounds, picnic areas, etc.), and

    d. commercial areas where there are continuous human activities (e.g.: commercial plazas and office buildings);

84. "Separate Sewer Systems" means wastewater collection systems that comprised of Sanitary Sewers while

runoff from precipitation and snowmelt are separately collected in Storm Sewers;

85. "Sewage Treatment Plant" means all the facilities related to sewage treatment within the sewage treatment plant site excluding the Final Effluent disposal facilities;

86. "Sewage Works" means any works for the collection, transmission, treatment and disposal of sewage or any part of such works, but does not include plumbing to which the Building Code Act, 1992 applies

87. "Single Sample Result" means the test result of a parameter in the effluent discharged on any day, as measured by a probe, analyzer or in a composite or grab sample, as required;

88. "Sludge" within the context of this Approval, means the organic materials resulting from treatment of sewage at the WPCP, up-to the anaerobic digestion processing step;

89. "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;

90. "Source Testing" means sampling and testing to measure emissions resulting from operating the Photoionization System under conditions which yield the worst case emissions within the approved operating range of the Photoionization System which satisfies paragraph 1 of subsection 11(1) of O. Reg. 419/05;

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

92. "Spill" is as defined in the EPA;

93. "Storm Sewers" means pipes that collect and convey runoff resulting from precipitation and snowmelt (including infiltration and inflow);

94. "Trained Personnel" means a person trained in accordance with the requirements of this Approval;

95. "Trucks" means sludge truck(s), chemical truck(s), chlorine trucks(s), delivery truck(s), solid Biowaste truck(s), liquid Biowaste truck(s) and Residual Waste/Rejected Waste truck(s);

96. "VFAs" means volatile fatty acids produced in the early stages of the anaerobic digestion process and within the context of this Approval means the volatile fatty acids produced in the Buffer Storage Tank;

97. "Waste" within the context of this Approval, it means any material defined as a waste or designated to be a waste under any Ontario regulation or any other discarded, unwanted, unsuitable for its original use or purpose (for example off-specification or expired) post-consumer goods, items or materials. Any outputs from processing/treatment of waste continue to be considered waste;

98. "Waste Processing Facility" means the processes and infrastructure for the management of Biowaste,

Sludge, Digestate and Biogas;

99. "Works" within the context of this Approval, means the approved Sewage Works, the Waste Processing Facility and Equipment, and includes Proposed Works, Existing Works and modifications made under Limited Operational Flexibility; and

100. "WPCP" means Water Pollution Control Plant known as Stratford Water Pollution Control Plant located at 701 West Gore Road in the City of Stratford, County of Perth.

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. 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 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 Works shall comply with the conditions of this Approval.

2. BUILD IN ACCORDANCE

1. Except as otherwise provided for in this Approval, the Works shall be designed, developed, constructed, operated, maintained and monitored in accordance with the application for this Approval, dated December 19, 2018 and the supporting documentation listed in Schedule A.

2. Any design modification that is inconsistent with the design basis set out in the supporting documentation in Schedule A, except as otherwise provided for in this Approval, shall be clearly identified, along with an explanation of the reasons for the change and submitted to the Director for approval.

3. If a change to the conceptual design is submitted to the Director for approval, no construction of the Works shall commence prior to the Director approving, in writing, the final conceptual design of the Works.

3. CONSTRUCTION OF PROPOSED WORKS

1. All Proposed Works in this Approval 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 Works not in operation. In the event that the construction, installation

and/or operation of any portion of the Proposed Works 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).

2. 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 Proposed Works. The Owner shall notify the District Manager within thirty (30) days of the commissioning operation of any Proposed Works. Upon completion of construction of the Proposed Works, the Owner shall prepare and submit a statement to the District Manager, certified by a Professional Engineer, that the Proposed Works is constructed in accordance with this Approval.

4. AS-BUILT DRAWINGS

1. Within ninety (90) days of completion of construction of the Proposed Works, a set of as-built drawings of the Works shall be prepared or updated. These drawings shall be kept up to date through revisions undertaken from time to time and a copy shall be readily accessible for reference at the Works.

5. 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 applications and a provision in any documents listed in Schedule A, the applications shall take precedence, unless it is clear that the purpose of the document was to amend the applications and that the Ministry approved the amendment.

3. Where there is a conflict between any two documents listed in Schedule A, other than the applications, 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.

6. 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.

7. ADVERSE EFFECTS

1. The Works shall be constructed, operated and maintained in a manner which ensures the health and safety of all persons and prevents adverse effects on the natural environment or on any persons.

2. 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 WPCP, including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.

3. Despite the 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 to the natural environment or impairment of water quality.

4. If at any time odours, pests, litter, dust, noise or other such negative effects are generated at this WPCP and cause an adverse effect, the Owner shall take immediate appropriate remedial action(s) that may be necessary to alleviate the adverse effect, including suspension of all Biowaste and Biogas management activities if necessary.

8. CHANGE OF OWNER AND OPERATING AGENCY

1. The Owner shall, within thirty (30) calendar days of issuance of this Approval, prepare/update and submit to the District Manager the Municipal and Local Services Board Wastewater System Profile Information Form, as amended (Schedule G) under any of the following situations:

   a. the form has not been previously submitted for the Works;

   b. this Approval is issued for extension, re-rating or process treatment upgrade of the Works;

   c. when a notification is provided to the District Manager in compliance with requirements of change of Owner or Operating Agency under this condition.

2. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within thirty (30) days of the change occurring:

   a. change of address of Owner;

   b. change of Owner, including address of new owner;

   c. change of 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;

   d. change of name of the corporation where the Owner is or at any time becomes a 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.

3. The Owner shall notify the District Manager, in writing, of any of the following changes within thirty (30) days of the change occurring:

   a. change of address of Operating Agency;

   b. change of Operating Agency, including address of new Operating Agency.

4. In the event of any change in ownership of the Works, the Owner shall notify the succeeding owner in writing, of the existence of this Approval, and forward a copy of the notice to the District Manager.

5. The Owner shall ensure that all communications made pursuant to this condition refer to the environmental compliance approval number.

6. No portion of the Works shall be transferred or encumbered prior to or after decommissioning of the Works unless the Director is notified in advance.

9. 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 WPCP, 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.

10. INFORMATION

1. Any information requested by the Ministry, concerning the operation of the WPCP 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, in a timely manner, upon request**.**

2. The Owner shall ensure that a copy of this Approval, in its entirety and including all its Notices of Amendment and the supporting documentation listed in Schedule A, are retained at the Site at all times.

3. All records and monitoring data required by the Conditions of this Approval must be kept at the WPCP, available for review by a Provincial Officer, for a minimum five (5) year period.

4. 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.

11. SIGNS AND SECURITY

1. The Owner shall maintain sign(s) at the entrance to the WPCP. The sign(s) shall be visible and readable from the main road leading to the WPCP. The following information shall be included on the sign(s):

   a. name of the Owner;

   b. this Approval number;

   c. hours during which the Waste Processing Facility is open;

   d. waste types that are approved to be accepted at the WPCP;

   e. Owner's telephone number to which complaints may be directed;

   f. Ministry's telephone number to which complaints may be directed;

   g. Owner's twenty-four hour emergency telephone number (if different from above);

   h. a warning against unauthorized access; and

   i. a warning against dumping at the WPCP.

2. The Owner shall ensure that appropriate and visible signs are installed and maintained at the WPCP:

   a. to direct vehicles to the Biowaste receiving area and the Digestate, the Rejected Waste and the

Residual Waste removal areas;

b. to clearly identify wastes, including the Biogas/odourous air mixture being managed at the WPCP with warnings about the nature and any possible hazards of the wastes; and

c. to prohibit smoking, open flames or sources of ignition from being allowed near any flammable or explosive materials processing and storage areas.

3. The Owner shall ensure that the WPCP is fenced in and that all entrances are secured by lockable gates to restrict access only to authorized personnel when the Biowaste Receiving Building is not open.

4. The Owner shall ensure that the WPCP is operated in a safe and secure manner, and that the Biowaste, the Residual Waste and the Rejected Waste are properly handled, packaged or contained and stored so as not to pose any threat to the WPCP personnel.

12. COMPLAINT RESPONSE PROCEDURE

1. A designated representative of the Owner shall be available to receive public complaints caused by the operations at the WPCP 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 WPCP, 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 WPCP 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 WPCP 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 actions taken as per Paragraph 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. The further measure may include the following actions:

   a. reduction in the receipt of Biowaste;

   b. cessation of the receipt of the Biowaste;

   c. removal and off-site disposal of the Biowaste;

   d. repairs or modifications to the equipment or processes in the Receiving Building or the Biogas Upgrading System, that may include the following actions:

      i. the Owner may prohibit use of specific doors under some circumstances or atmospheric conditions;

      ii. the Owner may increase the magnitude of the negative pressure to be maintained in the Receiving Building;

      iii. the Owner may increase the number of air exchanges in the areas suspected of causing fugitive odour emissions escaping from the Receiving Building; and

      iv. the Owner may retrofit the design of the ventilation system within the Receiving Building to provide a more effective local capture of the odours from the odour sources within the Receiving Building; and

   e. further investigation of possible sources of fugitive air emissions from the WPCP as follows:

i. the Owner shall develop of a plan, prepared by a Professional Engineer, for assessment of other possible sources of fugitive air emissions originating from the Biowaste received and processed at the WPCP, including but not limited to the Liquid Slurry Reception Tank, the Buffer Storage Tank, the Pasteurizers, the Anaerobic Digesters, the Screening Enclosure, the Digestate Storage Tank, the Digestate loading area and the Biogas upgrading area;

ii. the Owner shall conduct the assessment of other possible sources of fugitive air emissions, as directed or agreed by the District Manager as per the plan prepared in accordance with Paragraph 3.e.i. of this Approval;

iii. the Owner shall prepare and submit a report prepared by a Professional Engineer on the assessment of other possible sources of fugitive air emissions to the Director and the District Manager within two (2) months after completing the assessment of other possible sources of fugitive air emissions; and

iv. implement the recommendations identified in the assessment of other possible sources of fugitive air emissions report within two (2) months after completing the assessment of other possible sources of fugitive air emissions or as directed or agreed by the District Manager.

SEWAGE

13. BYPASSES

1. Any Bypass is prohibited, except:

   a. an emergency Bypass when a structural, mechanical or electrical failure causes a temporary reduction in the capacity of a treatment process or when an unforeseen flow condition exceeds the design capacity of a treatment process that is likely to result in personal injury, loss of life, health hazard, basement flooding, severe property damage, equipment damage or treatment process upset, if a portion of the flow is not bypassed;

   b. a planned Bypass that is a direct and unavoidable result of a planned repair and maintenance procedure or other circumstance(s), the Owner having notified the District Manager in writing at least fifteen (15) days prior to the occurrence of Bypass, including an estimated quantity and duration of the Bypass, an assessment of the impact on the quality of the Final Effluent and the mitigation measures if necessary, and the District Manager has given written consent of the Bypass.

2. Notwithstanding the exceptions given in Paragraph 1, the Operating Agency shall undertake everything practicable to maximize the flow through the downstream treatment process(es) prior to bypassing.

3. At the beginning of a Bypass Event, the Owner shall immediately notify the Spills Action Centre (SAC) and the local Medical Officer of Health. This notice shall include, at a minimum, the following information:

a. the type of the Bypass as indicated in Paragraph 1 and the reason(s) for the Bypass;

b. the date and time of the beginning of the Bypass;

c. the treatment process(es) gone through prior to the Bypass and the treatment process(es) bypassed;

d. the effort(s) done to maximize the flow through the downstream treatment process(es) and the reason(s) why the Bypass was not avoided.

4. Upon confirmation of the end of a Bypass Event, the Owner shall immediately notify the Spills Action Centre (SAC) and the local Medical Officer of Health. This notice shall include, at a minimum, the following information:

   a. the date and time of the end of the Bypass;

   b. the estimated or measured volume of Bypass.

5. For any Bypass Event, the Owner shall collect daily sample(s) of the Final Effluent, inclusive of the Event and analyze for all effluent parameters outlined in Compliance Limits condition, except for *E. coli* , toxicity to Rainbow Trout and Daphnia magna, total residual chlorine / bisulphite residual, dissolved oxygen, pH, temperature and unionized ammonia, following the same protocol specified in the Monitoring and Recording condition as for the regular samples. The sample(s) shall be in addition to the regular Final Effluent samples required under the monitoring and recording condition, except when the Event occurs on a scheduled monitoring day.

6. The Owner shall submit a summary report of the Bypass Event(s) to the District Manager on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15. The summary reports shall contain, at a minimum, the types of information set out in Paragraphs (3), (4) and (5) and either a statement of compliance or a summary of the non-compliance notifications submitted as required under Paragraph 1 of Condition 20. If there is no Bypass Event during a quarter, a statement of no occurrence of Bypass is deemed sufficient.

7. The Owner shall develop a notification procedure in consultation with the District Manager and SAC and notify the public and downstream water users that may be adversely impacted by any Bypass Event.

14. OVERFLOWS

1. Any Overflow is prohibited, except:

   a. an emergency Overflow in an emergency situation when a structural, mechanical or electrical failure causes a temporary reduction in the capacity of the Works or when an unforeseen flow condition exceeds the design capacity of the Works that is likely to result in personal injury, loss of life, health hazard, basement flooding, severe property damage, equipment damage or treatment process upset, if a portion of the flow is not overflowed;

b. a planned Overflow that is a direct and unavoidable result of a planned repair and maintenance procedure or other circumstance(s), the Owner having notified the District Manager in writing at least fifteen (15) days prior to the occurrence of Overflow, including an estimated quantity and duration of the Overflow, an assessment of the impact on the environment and the mitigation measures if necessary, and the District Manager has given written consent of the Overflow.

2. Notwithstanding the exceptions given in Paragraph 1, the Operating Agency shall undertake everything practicable to maximize the flow through the downstream treatment process(es) and Bypass(es) prior to overflowing.

3. At the beginning of an Overflow Event, the Owner shall immediately notify the Spills Action Centre (SAC) and the local Medical Officer of Health. This notice shall include, at a minimum, the following information:

   a. the type of the Overflow as indicated in Paragraph 1 and the reason(s) for the Overflow;

   b. the date and time of the beginning of the Overflow;

   c. the point of the Overflow from the Works, the treatment process(es) gone through prior to the Overflow, the disinfection status of the Overflow and whether the Overflow is discharged through the effluent disposal facilities or an alternate location;

   d. the effort(s) done to maximize the flow through the downstream treatment process(es) and Bypass(es) and the reason(s) why the Overflow was not avoided.

4. Upon confirmation of the end of an Overflow Event, the Owner shall immediately notify the Spills Action Centre (SAC) and the local Medical Officer of Health. This notice shall include, at a minimum, the following information:

   a. the date and time of the end of the Overflow;

   b. the estimated or measured volume of the Overflow.

5. For any Overflow Event

   a. in the Sewage Treatment Plant, the Owner shall collect grab sample(s) of the Overflow, one near the beginning of the Event and one every eight (8) hours for the duration of the Event, and have them analyzed at least for CBOD5, total suspended solids, total phosphorus, total ammonia nitrogen, nitrate as N, nitrite as N, total Kjeldahl nitrogen, *E. coli.* , except that raw sewage and primary treated effluent Overflow shall be analyzed for BOD5, total suspended solids, total phosphorus and total Kjeldahl nitrogen only.

6. The Owner shall submit a summary report of the Overflow Event(s) to the District Manager on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15. The summary report shall contain, at a minimum, the types of information

set out in Paragraphs (3), (4) and (5). If there is no Overflow Event during a quarter, a statement of no occurrence of Overflow is deemed sufficient.

7. The Owner shall develop a notification procedure in consultation with the District Manager and SAC and notify the public and downstream water users that may be adversely impacted by any Overflow Event.

15. DESIGN OBJECTIVES

1. The Owner shall design and undertake everything practicable to operate the Sewage Treatment Plant in accordance with the following objectives:

   a. Final Effluent parameters design objectives listed in the table(s) included in Schedule B.

   b. Final Effluent is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film or sheen or foam or discolouration on the receiving waters.

   c. Annual Average Daily Influent Flow is within the Rated Capacity of the Sewage Treatment Plant.

16. COMPLIANCE LIMITS

1. The Owner shall operate and maintain the Sewage Treatment Plant such that compliance limits for the Final Effluent parameters listed in the table(s) included in Schedule C are met.

2. The Owner shall operate and maintain the Sewage Treatment Plant such that the Final Effluent is disinfected continuously year-round.

17. OPERATION AND MAINTENANCE

1. The Owner shall ensure that, at all times, the Sewage Works and the related equipment and appurtenances used to achieve compliance with this Approval are properly operated and maintained. Proper operation and maintenance shall include effective performance, adequate funding, adequate staffing and training, including training in all procedures and other requirements of this Approval and the OWRA and regulations, adequate laboratory facilities, process controls and alarms and the use of process chemicals and other substances used in the Works.

2. The Owner shall maintain the operations manual for the Sewage Works, that includes, but not necessarily limited to, the following information:

   a. operating procedures for the Sewage Works under Normal Operating Conditions;

   b. inspection programs, including frequency of inspection, for the Sewage Works and the methods or tests employed to detect when maintenance is necessary;

c. repair and maintenance programs, including the frequency of repair and maintenance for the Sewage Works;

d. procedures for the inspection and calibration of monitoring equipment;

e. operating procedures for the Sewage Works to handle situations outside Normal Operating Conditions and emergency situations such as a structural, mechanical or electrical failure, or an unforeseen flow condition, including procedures to minimize Bypasses and Overflows;

f. a spill prevention and contingency plan, consisting of procedures and contingency plans, including notification to the District Manager, to reduce the risk of spills of pollutants and prevent, eliminate or ameliorate any adverse effects that result or may result from spills of pollutants;

g. procedures for receiving, responding and recording public complaints, including recording any followup actions taken.

3. The Owner shall maintain the operations manual up-to-date and make the manual readily accessible for reference at the Sewage Works.

4. The Owner shall ensure that the Operating Agency fulfills the requirements under O. Reg. 129/04, as amended for the Sewage Works, including the classification of facilities, licensing of operators and operating standards.

5. The Owner shall ensure that Sludge is hydrolysed in the three (3) Hydrolysis Tanks prior to anaerobic digestion. The Hydrolysis Tanks shall be insulated and mixed as proposed in the supporting documentation listed in Schedule A and operated as follows:

   a. The Owner shall ensure that the Hydrolysis Tanks have a hydraulic retention time of a minimum of 1.5 days;

   b. The Owner shall monitor the temperature of the Sludge in the Hydrolysis Tanks and ensure that it is maintained between 32°C and 55°C, as set out in the supporting documentation listed in Schedule A;

   c. Should the hydrolysis temperature monitoring show an excursion from the required range, an auditory alarm at the WPCP and a remote alarm to the dedicated Trained Personnel shall be triggered; and

   d. The Owner shall ensure that the head space of the Hydrolysis Tanks is vented into the Biogas Upgrading System.

18. MONITORING AND RECORDING

1. The Owner shall, upon commencement of operation of the Works, carry out a scheduled monitoring program of collecting samples at the required sampling points, at the frequency specified or higher, by means of the specified sample type and analyzed for each parameter listed in the tables under the

monitoring program included in Schedule D and record all results, as follows:

a. all samples and measurements are to be taken at a time and in a location characteristic of the quality and quantity of the sewage stream over the time period being monitored.

b. a schedule of the day of the week/month for the scheduled sampling shall be created. The sampling schedule shall be revised and updated every year through rotation of the day of the week/month for the scheduled sampling program, except when the actual scheduled monitoring frequency is three (3) or more times per week.

c. definitions and preparation requirements for each sample type are included in document referenced in Paragraph 3.b.

d. definitions for frequency:

   i. Weekly means once every week;

   ii. Annually means once every year.

2. In addition to the scheduled monitoring program required in Paragraph 1, the Owner shall collect daily sample(s) of the Final Effluent, on any day when there is any situation outside Normal Operating Conditions, by means of the specified sample type and analyzed for each parameter listed in the tables under the monitoring program included in Schedule D, except for *E. coli* , toxicity to Rainbow Trout and Daphnia magna, total residual chlorine / bisulphite residual, dissolved oxygen, pH, temperature and unionized ammonia.

3. The methods and protocols for sampling, analysis and recording shall conform, in order of precedence, to the methods and protocols specified in the following documents and all analysis shall be conducted by a laboratory accredited to the ISO/IEC:17025 standard or as directed by the District Manager:

   a. the Ministry's Procedure F-10-1, “Procedures for Sampling and Analysis Requirements for Municipal and Private Sewage Treatment Works (Liquid Waste Streams Only), as amended;

   b. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;

   c. the publication "Standard Methods for the Examination of Water and Wastewater", as amended.

4. If the Owner monitors Bisulphite Residual as a surrogate to Total Residual Chlorine, then detected levels of Bisulphite Residual in the sample shall be deemed to confirm absence of Total Residual Chlorine.

5. The Owner shall monitor and record the flow rate and daily quantity using flow measuring devices or other methods of measurement as approved below calibrated to an accuracy within plus or minus 15 per cent (+/- 15%) of the actual flowrate of the following:

   a. Influent flow to the Sewage Treatment Plant by continuous flow measuring devices;

b. Final Effluent discharged from the Sewage Treatment Plant by continuous flow measuring devices and instrumentations, or in lieu of an actual installation of equipment, adopt the flow measurements of the Influent for the purpose of estimating Final Effluent flows if the Influent and Final Effluent streams are considered not significantly different in flow rates and quantities;

c. Imported sewage received for co-processing at the Sewage Treatment Plant by flow measuring devices/pumping rates/haul truck manifests.

6. The Owner shall retain for a minimum of five (5) years from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

19. LIMITED OPERATIONAL FLEXIBILITY

1. The Owner may make pre-authorized modifications to the Sewage Treatment Plant in Works in accordance with the document “Limited Operational Flexibility - Protocol for Pre-Authorized Modifications to Municipal Sewage Works” (Schedule E), as amended, subject to the following:

   a. the modifications will not involve the addition of any new treatment process or the removal of an existing treatment process, including chemical systems, from the liquid or solids treatment trains as originally designed and approved.

   b. the scope and technical aspects of the modifications are in line with those delineated in Schedule E and conform with the Ministry’s publication “Design Guidelines for Sewage Works 2008”, as amended, Ministry’s regulations, policies, guidelines, and industry engineering standards;

   c. the modifications shall not negatively impact on the performance of any process or equipment in the Works or result in deterioration in the Final Effluent quality;

   d. modifications to any process or equipment handling and processing Biowaste or Biowaste slurry mixed with Sludge is prohibited;

   e. where the pre-authorized modification requires notification, a "Notice of Modifications to Sewage Works" (Schedule E), as amended shall be completed with declarations from a Professional Engineer and the Owner and retained on-site prior to the scheduled implementation date. All supporting information including technical memorandum, engineering plans and specifications, as applicable and appropriate to support the declarations that the modifications conform with LOF shall remain on-site for future inspection.

2. The following modifications are not pre-authorized under Limited Operational Flexibility:

   a. Modifications that involve addition or extension of process structures, tankages or channels;

   b. Modifications that involve relocation of the Final Effluent outfall or any other discharge location or that may require reassessment of the impact to the receiver or environment;

c. Modifications that involve addition of or change in technology of a treatment process or that may involve reassessment of the treatment train process design;

d. Modifications that require changes to be made to the emergency response, spill prevention and contingency plan; or

e. Modifications that are required pursuant to an order issued by the Ministry.

20. REPORTING

1. The Owner shall report to the District Manager orally as soon as possible any non-compliance with the compliance limits, and in writing within seven (7) days of non-compliance.

2. The Owner shall, within fifteen (15) days of occurrence of a spill within the meaning of Part X of the EPA, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation, in addition to fulfilling the requirements under the EPA and O. Reg. 675/98 "Classification and Exemption of Spills and Reporting of Discharges".

3. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.

4. The Owner shall prepare performance reports on a calendar year basis and submit to the District Manager by March 31 of the calendar year following the period being reported upon. The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period:

   a. a summary and interpretation of all Influent, imported sewage monitoring data, and a review of the historical trend of the sewage characteristics and flow rates;

   b. a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, loading and a comparison to the design objectives and compliance limits in this Approval, including an overview of the success and adequacy of the Works;

   c. a summary of any deviation from the monitoring schedule and reasons for the current reporting year and a schedule for the next reporting year;

   d. a summary of all operating issues encountered and corrective actions taken;

   e. a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;

   f. a summary of any effluent quality assurance or control measures undertaken;

   g. a summary of the calibration and maintenance carried out on all Influent, imported sewage and Final Effluent monitoring equipment to ensure that the accuracy is within the tolerance of that equipment

as required in this Approval or recommended by the manufacturer;

h. a summary of efforts made to achieve the design objectives in this Approval, including an assessment of the issues and recommendations for pro-active actions if any are required under the following situations:

   i. when any of the design objectives is not achieved more than 50% of the time in a year, or there is an increasing trend in deterioration of Final Effluent quality;

   ii. when the Annual Average Daily Influent Flow reaches 80% of the Rated Capacity;

i. a tabulation of the volume of Sludge generated, an outline of anticipated volumes to be generated in the next reporting period and a summary of the locations to where the Sludge was disposed;

j. a summary of all Bypasses, Overflows, other situations outside Normal Operating Conditions and spills within the meaning of Part X of EPA and abnormal discharge events;

k. a summary of all Notice of Modifications to Sewage Works completed under Paragraph 1.e. of Condition 19, including a report on status of implementation of all modification;

l. a summary of efforts made to achieve conformance with Procedure F-5-1 including but not limited to projects undertaken and completed in the sanitary sewer system that result in overall Bypass/Overflow elimination including expenditures and proposed projects to eliminate Bypass/Overflows with estimated budget forecast for the year following that for which the report is submitted; and

m. a summary of any complaints received and any steps taken to address the complaints;

WASTE

21. SERVICE AREA AND APPROVED BIOWASTE TYPES

1. This WPCP is approved to accept the Biowaste generated within the Province of Ontario.

2. The WPCP is limited to receive the following Biowaste categories:

   a. solid Biowaste from residential (domestic) sources limited to SSO that may contain soiled diapers, soiled incontinence products, soiled sanitary products and pet wastes;

   b. solid and liquid Biowaste from IC&I sources limited to the following waste types:

      i. slurry originating from SSO, produced off-site;

      ii. Biowaste from food or feed processing or preparation facilities that contains no chemicals

other than food-grade chemicals or food or feed waste;

iii. Biowaste from cooked pet food manufacturing waste or pet food waste;

iv. Biowaste produced in a dissolved air flotation process used for the treatment of wastewater from food or feed processing or preparation facilities; and

v. Biowaste from production of ethanol or biodiesel.

22. BIOWASTE RECEIPT RATES AND WASTE STORAGE

1. The Owner is approved to receive the Biowaste in quantities that are not to exceed:

   a. a maximum of 150 tonnes tonnes of solid Biowaste daily;

   b. a maximum of 40 cubic metres of liquid Biowaste daily;

   c. a maximum of 20,900 tonnes tonnes of solid Biowaste annually; and

   d. a maximum of 5,000 tonnes of liquid Biowaste annually.

2. The Owner shall ramp up the Biowaste processing capacity during start-up in accordance with the proposal set out in the supporting documentation listed in Schedule A.

3. The Owner is approved to store the following amounts of Waste at the WPCP:

   a. a maximum of 228 tonnes of solid Biowaste stored on the tipping floor within the Receiving Building, at any one time;

   b. a maximum of 50 cubic metres of liquid Biowaste contained within the Liquid Waste Reception Tank located within the Receiving Building Tank Yard, at any one time;

   c. a maximum of 500 cubic metres of Biowaste slurry contained within one (1) Buffer Storage Tank located within the Receiving Building Tank Yard, at any one time;

   d. a maximum of 4 cubic metres of Biowaste slurry combined with Sludge being pasteurized and contained within each of the three (3) Pasteurization Tanks located within the Receiving Building Tank Yard, at any one time;

   e. a maximum of 1,600 cubic metres of Biowaste slurry combined with Sludge being anaerobically digested and contained within each of the two (2) Digesters, at any one time;

   f. a maximum of 1,600 cubic metres of Digestate stored within one (1) Digestate Storage Tank, at any one time;

g. a maximum of 2 cubic metres of Residual Waste temporarily stored within a roll-off bin located in the Post Digestion Screen Enclosure, at any one time; and

h. a maximum of 15 cubic metres of Residual Waste temporarily stored within a covered roll-off bin located in the Receiving Building, at any one time.

4. The Residual Waste stored in the Receiving Building shall be transferred from the WPCP to an approved waste disposal site as soon as its storage bin is filled to its holding capacity.

5. Rejected Waste may be temporarily stored in a designated area on the tipping floor/storage area located in the Receiving Building.

6. No Biowaste shall be stored on the tipping floor of the Receiving Building for longer than 2.5 days, as set out in the supporting documentation listed in Schedule A.

7. The Owner shall ensure that the outdoor storage and processing tanks, including their spill containment, are designed in accordance with the supporting documents listed in Schedule A.

8. No outside waste storage other than that described above, is approved under this Approval.

9. The Owner shall ensure that sufficient storage capacity is available in the Liquid Waste Reception Tank prior to unloading of the liquid Biowaste from the transport vehicles into the Tank.

10. The Owner shall equip all Biowaste storage and processing tanks with a liquid level monitoring device.

11. A provision for an auditory alarm at the WPCP and a remote alarm to the dedicated Trained Personnel, when the high level setpoint in all Biowaste storage and processing tanks is reached, shall be provided and be in place prior to the first receipt of the Biowaste at the WPCP.

12. Should the high level setpoint in all Biowaste storage and processing tanks be reached, an auditory alarm at the WPCP and a remote alarm to the dedicated Trained Personnel shall be triggered.

13. The Owner shall monitor and control the liquid waste levels in the liquid waste storage/processing tanks to ensure that the design storage capacity available within the tanks is not exceeded.

14. The Owner shall ensure that sufficient storage capacity is available on the Biowaste storage tipping floor in the Receiving Building prior to unloading of the solid Biowaste from the transport vehicles.

15. The Owner shall schedule processing of the Biowaste in a way that ensures that the oldest Biowaste is processed first.

16. In the event that the Biowaste cannot be processed/transferred at the WPCP and the WPCP (storage tanks and tipping floor) is at its approved Biowaste storage capacity, the Owner shall cease accepting additional Biowaste. Receipt of additional Biowaste may be resumed once such receipt complies with

the waste storage limitations approved in this Approval.

23. OPERATING HOURS

1. The Owner shall ensure that the Biowaste receipt at the WPCP is only between 5 a.m. to 6 p.m. Monday to Friday.

2. The Owner shall ensure that the Residual Waste, Rejected Waste and Digestate are transported from the WPCP only between 5 a.m. to 6 p.m. Monday to Friday.

3. Solid Biowaste pre-processing in the Receiving Building may be carried out during normal operating hours of the WPCP between 7 a.m. to 4 p.m. Monday to Friday.

4. The Owner is approved to undertake other waste management and processing activities at the WPCP twenty-four (24) hours per day, seven (7) days per week.

24. INCOMING BIOWASTE RECEIPT AND HANDLING

1. The Owner shall establish and implement a waste screening and tracking system for all waste received, stored and processed at the WPCP.

2. The incoming Biowaste 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 WPCP and shall immediately be directed off-WPCP.

3. The Owner shall visually inspect all incoming solid Biowaste loads and the accompanying waste characterization documentation to ensure that only waste that is approved under this Approval is received at the WPCP.

4. The Owner shall only accept the incoming Biowaste that is delivered in vehicles that have been approved by the Ministry or registered on the EASR, as required.

5. Upon arriving at the WPCP, the solid Biowaste shall be forthwith unloaded within the confines of the Receiving Building.

6. All sorting of the incoming solid Biowaste at the WPCP shall be undertaken indoors, within the confines of the Receiving Building.

7. The Trained Personnel shall remove the Rejected Waste from the incoming Biowaste prior to transfer of the Biowaste from the designated receiving area.

8. Liquid Biowaste shall be unloaded from the tanker trucks via quick-connect located on the outside of the Receiving Building.

9. Liquid Biowaste unloading area design shall be as proposed in the supporting documentation in

Schedule A.

10. The Owner shall ensure that a drip tray is placed under the quick-connect when the liquid Biowaste is being unloaded from the tanker trucks.

11. The Owner shall ensure that head space of the Liquid Waste Reception Tank is vented into the Photoionization System.

25. REJECTED AND RESIDUAL WASTE HANDLING

1. In the event that Waste that is not approved under this Approval is inadvertently accepted at the WPCP, the Owner shall ensure that this Rejected Waste is stored within the confines of the Receiving Building in a way that ensures that no adverse effects result from its storage, away from all other Waste and materials.

2. The Owner shall ensure that the Rejected Waste is removed from the WPCP within forty eight (48) hours of its receipt or as instructed in writing by the District Manager.

3. The Owner shall ensure that all handling of Rejected Waste and Residual Waste, including loading of the Rejected Waste and Residual Waste into vehicles for transport from the WPCP is undertaken within the confines of the enclosed Receiving Building.

4. Only haulers approved by the Ministry or registered on the EASR shall be used to transport the Residual Waste and Rejected Waste from the WPCP, as required.

5. Residual Waste and Rejected Waste shall be transported from the WPCP in appropriately covered vehicles that will not allow fugitive dust or odour emissions to be emitted into the natural environment during the said transport.

6. Residual Waste and Rejected Waste generated at the WPCP shall be shipped for further processing or final disposal at an approved waste disposal site in accordance with the requirements in the EPA and Regulation 347 or at a location with the appropriate jurisdictional approval or a license, if required.

26. APPROVED PROCESSING

1. The following Biowaste and Biogas management/processing activities within the WPCP are approved under this Approval:

    a. receipt and temporary storage of the Biowaste;

    b. manual removal of large inorganic contaminants from the solid Biowaste;

    c. pre-treatment of the solid Biowaste in an organics processing system referred to as SUEZ RE Sep 2.0, limited to de-packaging, Biowaste separation and polishing to remove inorganic contaminants

and to produce pumpable Biowaste slurry destined for further storage in the Buffer Storage Tank;

d. temporary storage of the Biowaste slurry in one (1) Buffer Storage Tank;

e. mixing of the Biowaste slurry, the liquid Biowaste and the Sludge;

f. pasteurization of the Biowaste and the Sludge in three (3) Pasteurizers;

g. anaerobic digestion of the Biowaste and the Sludge and production of Biogas and the Digestate in two (2) Anaerobic Digesters;

h. screening of the Digestate with a screw press to remove remaining light-weight inorganic contaminants;

i. upgrading (treatment) of the Biogas/odourous air mixture into Renewable Natural Gas destined for injection into natural gas distribution infrastructure;

j. emergency flaring of the Biogas/odourous air mixture;

k. temporary storage of the Digestate;

l. transfer of the Digestate for land application; and

m. temporary storage of the Residual Waste and of the Rejected Waste prior to transfer from WPCP for further processing or final disposal at an approved waste disposal site.

2. Any changes to the minimum hydraulic retention duration in the two Anaerobic Digesters required by Paragraph 6 of Condition 30, including pilot studies, shall only be implemented with the written approval of the Director.

3. Should the Owner decide to carry out a pilot study to reduce the minimum hydraulic retention duration in the two Anaerobic Digesters, a minimum of six (6) months prior to the planned commencement of the pilot study, the Owner shall submit for the Director's approval, a pilot study plan outlining the proposed schedule and the study methods. This Plan shall be prepared in consultation with the Ministry.

27. PRE-TREATMENT OF SOLID BIOWASTE

1. All pre-treatment of solid Biowaste shall be carried out within the confines of the Receiving Building.

2. The Owner shall ensure that effective local capture of odour emissions is in place at all times when the pre-treatment of solid Biowaste is being carried out.

3. The Owner shall ensure that all odours generated by the pre-treatment of solid Biowaste area are discharged into the Photoionization System.

28. BUFFER STORAGE TANK

1. The Buffer Storage Tank shall be insulated and mixed as proposed in the supporting documentation listed in Schedule A.

2. The Owner shall ensure that the Buffer Storage Tank has hydraulic retention duration of a minimum of five (5) days as proposed in the supporting documentation listed in the attached Schedule A.

3. The Owner shall monitor the temperature in the Buffer Storage Tank to confirm the design as proposed in the supporting documentation listed in the attached Schedule A.

4. A provision for an auditory alarm at the WPCP and a remote alarm to the dedicated Trained Personnel, when required storage temperature is not being achieved, shall be provided and be in place prior to the first receipt of the Biowaste at the WPCP.

5. Should the storage temperature monitoring show an excursion from the required setpoint, an auditory alarm at the WPCP and a remote alarm to the dedicated Trained Personnel shall be triggered.

6. The Owner shall ensure that the minimum pH in the Buffer Storage Tank is not less than 3.5, as proposed in the supporting documentation listed in Schedule A.

7. The Owner shall ensure that the head space of the Buffer Storage Tank is vented into the Biogas Upgrading System.

29. PASTEURIZATION

1. The three (3) Pasteurization Tanks shall be operated in parallel.

2. Pasteurization Tanks shall be insulated, heated and mixed as proposed in the supporting documentation in Schedule A.

3. The Owner shall ensure that the Biowaste slurry and the Sludge within the Pasteurization Tanks are maintained at a minimum temperature of 70°C for a minimum of one (1) hour to ensure complete inactivation of pathogens in the Biowaste and the Sludge.

4. The temperature of the processing in the Pasteurization Tanks shall be monitored to verify compliance with Paragraph 3.

5. A provision for an auditory alarm at the WPCP and a remote alarm to the dedicated Trained Personnel, when required pasteurization temperature is not being achieved, shall be provided and be in place prior to the first receipt of the Biowaste at the WPCP.

6. Should the pasteurization temperature monitoring show an excursion from the required setpoint, an auditory alarm at the WPCP and a remote alarm to the dedicated Trained Personnel shall be triggered.

7. The Owner shall ensure that head space of the Pasteurization Tanks is vented into the Biogas Upgrading System.

30. ANAEROBIC DIGESTION

1. The two (2) Anaerobic Digesters shall both be operated as primary digesters when processing the Biowaste slurry and the Sludge.

2. The two (2) Anaerobic Digesters shall be insulated and gas-mixed as proposed in the supporting documentation in Schedule A.

3. Anaerobic Digester No.1 shall be equipped with a fixed roof and be fitted with pressure/vacuum release valves.

4. Anaerobic Digester No.2 shall be equipped with a floating roof and be fitted with pressure/vacuum release valves.

5. The Biowaste slurry and the Sludge processing in the Anaerobic Digesters shall be carried out in the mesophilic temperature range as proposed in the supporting documentation listed in Schedule A, at all times.

6. The Biowaste slurry and the Sludge shall be processed in the Anaerobic Digesters for a minimum hydraulic retention duration of twenty (20) days as proposed in the supporting documentation listed in Schedule A, at all times.

7. The volume level, temperature and duration of the processing in the Anaerobic Digesters shall be monitored to verify compliance with Paragraphs (5) and (6).

8. The Biogas production shall be monitored as set out in the supporting documentation listed in Schedule A.

9. 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 values to the atmosphere, regardless of quantity, the Owner shall immediately notify the Ministry, in writing.

31. DIGESTATE SCREENING

1. Digestate from the two (2) Anaerobic Digesters shall be pumped to the Post Digestion Screening Enclosure for screening with a screw press, as proposed in the supporting documentation listed in Schedule A.

2. The Digestate screening shall be carried out within the Post Digestion Screening Enclosure equipped with a ventilation system that ensures six (6) air exchanges per hour, as proposed in the supporting

documentation listed in Schedule A, at all times.

3. All doors and windows of the Post Digestion Screening Enclosure shall be closed at all times except to allow for personnel traffic in and out the Post Digestion Screening Enclosure and to move the Residual Waste bin.

4. The Residual Waste from the screening process shall be collected in the roll-off bin located within the Post Digestion Screening Enclosure, at all times, unless the bin is full and ready for transfer to the Receiving Building.

5. The bin for the Residual Waste from the screening process shall be always covered with a lid during transfer from the Post Digestion Screening Enclosure to the Receiving Building to minimize the fugitive odour emissions.

6. The discharge from the Post Digestion Screening Enclosure shall be vented into its dedicated Post Digestate Skid Odour Treatment System, as proposed in the supporting documentation listed in Schedule A, at all times.

32. BIOGAS MANAGEMENT

1. The Biogas/odourous air mixture shall be monitored as set out in the supporting documentation listed in Schedule A.

2. Treated Biogas/odourous air mixture is considered to be Renewable Natural Gas when it meets the requirements for injection into the natural gas distribution infrastructure.

3. The Renewable Natural Gas produced at the WPCP shall comply with the applicable criteria required for its intended injection into the natural gas distribution infrastructure.

4. The Owner shall maintain the Biogas/odourous air mixture flare system as a fully functional stand-by system, so that when there is a process upset and/or when the Biogas/odourous air mixture upgrading process is inoperable, the flare may be utilized to combust the Biogas/odourous air mixture.

5. Treated Biogas/odourous air mixture which does not meet the required Renewable Natural Gas quality criteria shall be transferred to the flare for flaring.

6. For the purpose of ensuring that the activated carbon breakthrough does not occur, the Biogas/odourous air mixture shall be monitored as set out in the supporting documentation listed in Schedule A.

33. TESTING OF INCOMING BIOWASTE

1. The Owner shall ensure that prior to its first acceptance of a given new incoming Biowaste, the incoming Biowaste is characterized during the 14-day period preceding its first-time receipt at the WPCP.

2. If the Owner relies on the published data for the well-studied/characterized incoming Biowaste, the latest

published information shall be used to confirm that the characteristics of the incoming Biowaste to be received at the WPCP are in compliance with the incoming Biowaste quality criteria required under this Approval.

3. If the published data is not available or used to confirm compliance of the incoming Biowaste with the quality criteria from this Approval, the Owner shall ensure that at least three (3) representative grab samples of the incoming Biowaste are obtained from the proposed incoming Biowaste stream and characterized, each time the characterization is required.

4. The Owner shall ensure that each sample of the incoming Biowaste has been analysed for metals identified as the requirements for the Off-Farm Anaerobic Digestion Materials set out in O. Regulation 267/03, in accordance with the methods and frequencies specified in this Approval.

5. The Owner shall ensure a copy of the analysis sets out the concentration metal in each Biowaste 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.

6. The analysis of samples of the incoming Biowaste 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.

7. Once the initial Biowaste characterization shows compliance with the metal content limits for the Off-Farm Anaerobic Digestion Materials set out in O. Regulation 267/03, the Biowaste source may be considered a pre-approved source.

8. Following the initial characterization of the incoming Biowaste, the Owner shall ensure that subsequent sampling and analysis is conducted for every 1,000 m^3 of the given Biowaste or once a year, whichever comes first, provided the said Biowaste is of the same type and is from the same source. If, after the first twelve (12) months of sampling and analysis, the results are consistent and continuously below the prescribed limits, sampling and analysis shall be conducted for the given Biowaste once a year or following any process changes, operational issues or other factors that may affect the quality of the said Biowaste from the pre-approved source.

9. The incoming Biowaste shall not be accepted at the WPCP if the analytical requirements listed in this Approval have not been fulfilled or if the analysis of the said Biowaste as described in this Approval determines that the metal content in the said Biowaste exceeds the metal content limits for the Off-Farm

Anaerobic Digestion Materials set out in O. Regulation 267/03.

10. In order to resume accepting a given Biowaste following previous rejection, the Owner shall ensure that the analytical requirements listed in this Approval have been fulfilled and that two (2) sampling events of the said Biowaste generate analytical results which, separately and consecutively, do not exceed the metal content limits for the Off-Farm Anaerobic Digestion Materials set out in O. Regulation 267/03.

11. Should results of testing of the incoming Biowaste fail to meet the quality criteria specified in this Approval, the said Biowaste shall be handled in accordance with the Contingency and Emergency Response Plan.

34. TESTING OF DIGESTATE

1. If the Digestate is managed as a waste destined for land application on non-agricultural land, the Owner shall undertake quality control sampling and testing as required by the conditions of the Environmental Compliance Approval for the site where the Digestate is to be land-applied or as proposed in the supporting documentation, whichever sampling frequency generates more samples.

2. If the Digestate is managed as a material destined for land application on agricultural land, the Owner shall undertake quality control sampling and testing required by the regulations, policies and guidelines under the NMA or as proposed in the supporting documentation, whichever sampling frequency generates more samples.

35. END-USE OF DIGESTATE

1. If the Digestate is to be land-applied to agricultural land, the Digestate shall be managed in accordance with the requirements of the NMA.

2. If the Digestate is not managed in accordance with the requirements of the NMA, it is considered a processed organic waste, as defined in Regulation 347, 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; and

    b. Digestate managed as waste shall be disposed of at a Ministry-approved site or a site approved to accept such waste by an equivalent jurisdiction.

3. Digestate shall only be removed from the WPCP by a hauler approved by the Ministry to transport such waste, or registered on the EASR, as required.

4. Digestate resulting from the anaerobic digestion of the SSO that includes soiled diapers, soiled incontinence products and soiled sanitary products is considered to be a waste containing human body waste and its transfer from the WPCP for agricultural land application shall only be with a written notification to the receiving site's owner that the material contains human body waste so that the

receiving site owner can determine the applicable regulatory requirements under the NMA.

5. After each time the Product Label changes or when the Owner receives confirmation from the CFIA that a new Product Label is not required but prior to each first shipment of the Digestate generated at the WPCP and shipped from the WPCP as a Fertilizer following a decision by the CFIA, the Owner shall provide to the Director and the District Manager, a copy of the documentation from the CFIA showing that the Digestate generated at the WPCP has been assessed and approved for use as a Fertilizer under the Fertilizers Act or that a new Product Label is not required.

6. In addition to the notification required by Paragraph 5, 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.

7. All Digestate shipped from the WPCP as a Fertilizer must be accompanied by a Product Label that has been approved by the CFIA.

8. Following any changes to the incoming Biowaste 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.

36. WASTEWATER AND RUN-OFF MANAGEMENT

1. The Owner shall ensure that all wastewater generated from the areas where the Biowaste and Biogas management activities are carried out, is contained within enclosed buildings, sumps, tanks, pipes and the spill containment areas.

2. The Owner shall ensure that all wastewater generated within the Receiving Building is collected in the following leak-proof and sufficiently designed wastewater drains and collection sumps.

3. The Owner shall ensure that all wastewater generated within the Receiving Building is either utilized in the process as proposed in the supporting documentation listed in Schedule A or disposed of at a site having an appropriate Environmental Compliance Approval issued by the Ministry.

4. The tipping floor of the Receiving Building shall be sufficiently sloped to facilitate the flow of the wastewater generated from the floor cleaning activities and from the truck wheels washdown towards the designated wastewater collection area.

5. The wastewater level in the wastewater holding facilities shall be monitored and controlled to ensure that

the wastewater inflow does not cause an overflow.

6. The Owner shall regularly empty, clean and disinfect, as necessary, all sumps, wastewater storage/holding areas and equipment that are used to contain, collect and handle the wastewater generated in the areas where the Biowaste and Biogas management activities are carried out.

7. The spill containment for the Receiving Building Tank Yard containing the Liquid Waste Reception Tank, the Buffer Storage Tank, the Pasteurization Tanks and the Sludge Hydrolysis Tanks shall be designed, constructed and operated as proposed in the supporting documentation listed in Schedule A.

8. Run-off from the Receiving Building Tank Yard shall be managed as set out in the supporting documentation listed in Schedule A.

9. The Owner shall continue to follow the existing spill containment protocols for the operation of the Anaerobic Digesters and the Digestate Storage Tank as described in the supporting documentation listed in Schedule A.

10. The existing ferrous chloride storage tanks and the anti-foam reagent drums shall be stored as proposed in the supporting documentation listed in Schedule A.

37. PROHIBITIONS

1. The Owner shall not accept at the WPCP:

   a. any Waste that is classified as subject waste as defined in Regulation 347;

   b. any Waste that is classified as "Specified Risk Materials" which has the same meaning as in section 6.1 of the *Health of Animals Regulations* (C.R.C., c. 296), made under the *Health of Animals Act* (S.C. 1990, c. 21), as amended;

   c. dedicated loads of soiled diapers, soiled incontinence products, soiled sanitary products and pet waste from the IC&I sources; and

   d. any Biosolids or Sludge, other than those produced at the WPCP.

2. Burning of any Wastes, other than the Biogas/odourous air mixture, as approved in this Approval, is prohibited at the WPCP.

3. Other uses of the Renewable Natural Gas produced at the WPCP, other than injection into the natural gas distribution infrastructure are not considered under this Approval.

4. Except for spill containment purposes for emergency situations, the existing Digestate Storage Lagoon shall not be used to store the Digestate after the issuance of this Approval.

38. INSPECTIONS AND EQUIPMENT MAINTENANCE

1. Prior to the receipt of any Biowaste at the WPCP, the Owner shall prepare a comprehensive written inspection program which includes procedures for inspections of all aspects of the Biowaste and Biogas management including but not limited to the following:

    a. the structural integrity of the Receiving Building including but not limited to the Building's exterior/roof and the condition of any areas previously requiring repairs;

    b. condition of all Biowaste loading, unloading, handling, processing and storage areas;

    c. condition of all major pieces of the Biowaste and Biogas handling equipment;

    d. condition of all instruments required to carry out the monitoring activities required under this Approval;

    e. security fence and property line;

    f. on-site roads for presence of leaks and drips from the Biowaste delivery trucks or Residual Waste or Digestate trucks;

    g. presence of excessive fugitive dust emissions from the on-site roads;

    h. presence of litter at the WPCP and around the perimeter fence;

    i. presence of vector and vermin;

    j. presence of VFAs in the Biogas upgrading area; and

    k. presence of off-site odours.

2. The inspections listed in Paragraph 1 are to be undertaken daily by Trained Personnel in accordance with the inspection program to ensure that all the Biowaste and Biogas equipment and facilities at the WPCP 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.

3. Prior to the receipt of any Biowaste at the WPCP, the Owner shall have in place a preventative maintenance program for all equipment associated with processing and managing of Biowaste and Biogas and control of odour and dust emissions. The preventative maintenance program shall be maintained up-to-date and shall be available for inspection by a Provincial Officer upon request.

4. Prior to the receipt of any Biowaste, 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 WPCP and be made available for inspection by a Provincial Officer, upon

request.

5. The Owner shall ensure that the critical spare parts are available at the WPCP at all times or be promptly available from an off-site supplier.

39. NUISANCE IMPACT CONTROL AND HOUSEKEEPING

1. The Owner shall ensure that all windows and doors, including personal access doors, of the Receiving Building are closed at all times, except during shipping and/or receiving, operational access and maintenance.

2. The Owner shall ensure that no two truck doors are open at the same time, and shall limit the use of personal access doors while a truck door is open, except for the personal access door in the tipping area which shall not be opened when either of the two truck doors are opened.

3. The Owner shall undertake appropriate housekeeping activities, including regular cleaning/washing of the tipping floor in the Receiving Building to control potential sources of fugitive odour emissions.

4. The Owner shall ensure that no storage containers or equipment used to handle the Biowaste, the Rejected Waste and the Residual Waste are kept outside.

5. The Owner shall ensure that all vehicles transporting waste to and from the WPCP are not leaking or dripping waste when arriving at or leaving the WPCP.

6. Should the Owner become aware that the vehicle(s) delivering waste to the WPCP have leaked waste on the municipal roadways, 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 or the EASR registration number, the type of Biowaste delivered to the WPCP and the date of the delivery. A copy of the notice shall be retained at the WPCP and it shall be provided to the Ministry staff upon request.

7. The Owner shall ensure that the wheels and exterior of all vehicles delivering Biowaste to the WPCP are inspected and washed, as required, prior to the vehicles' departure from the WPCP.

8. Any necessary vehicle wheel washing shall occur only in the designated wash down area of the Receiving Building.

9. The Owner shall ensure that there is no queuing or parking of vehicles that are waiting to enter the WPCP on any roadway that is not a distinct part of the WPCP.

10. The Owner shall ensure that all vehicles hauling waste, including those carrying the Digestate, are adequately covered to prevent fugitive odour or dust emissions during transport.

11. The Owner shall ensure that all on-site roads and operations/yard areas are regularly swept/wetted to

prevent dust impacts off-site.

12. The Owner shall ensure that the vehicles transporting waste to and from the WPCP use the designated on-site traffic routes.

13. The Owner shall ensure that all new drivers of vehicles transporting waste to and from the WPCP are instructed/trained on the acceptable on-site traffic routes.

14. The Owner shall:

    a. prevent the escape of litter from the WPCP;
    b. pick up litter around the WPCP on a daily basis, or more frequently if necessary; and
    c. if necessary, erect litter fences around the areas causing a litter problem.

15. The Owner shall regularly clean all equipment used to handle and process the Biowaste and the Digestate at the WPCP, as required.

16. The Owner shall:

    a. implement necessary housekeeping procedures to eliminate sources and potential sources of attraction for vermin and vectors; and

    b. hire a qualified, licensed pest control professional to design and implement a pest control plan for the WPCP. The pest control plan shall remain in place, and be updated from time to time as necessary, until the WPCP has been closed and this Approval has been revoked.

17. Prior to the receipt of the Biowaste at the WPCP, the Owner shall test the Receiving Building envelope to identify the unplanned leakage points in the Receiving Building and to confirm the effectiveness of the structural containment of the Receiving Building.

18. The testing shall be carried out by a licensed structural engineer in accordance with the test protocol prepared in consultation with and approved by the District Manager.

19. The testing shall be repeated as directed or agreed by the District Manager.

40. OPERATIONS MANUAL

1. Prior to the receipt of any Biowaste at the WPCP, the Owner shall prepare and implement an Operations Manual for use by the Trained Personnel responsible for the Biowaste and Biogas management activities. As a minimum, the Operations Manual shall contain the following:

    a. outline the responsibilities of personnel responsible for the Biowaste and Biogas management activities;

b. personnel training protocols;

c. Biowaste receiving procedures;

d. Biowaste unloading, handling, storage and processing procedures;

e. Residual Waste, Rejected Waste and the Digestate storage, loading, shipping and manifesting, as required, procedures;

f. process monitoring procedures, including equipment calibration procedures;

g. Biowaste, Biogas and Digestate sampling and testing procedures;

h. operating procedures and maintenance procedures for the equipment used for Biowaste and Biogas management;

i. procedures for inspections, spill, fire, flood, any upset and leakage recording procedures for all Biowaste and Biogas management areas; and

j. procedure for handling of public complaints as described in this Approval.

2. A copy of the Operations Manual shall be kept at the WPCP, must be accessible to the personnel at all times and must be updated, as required.

41. STAFF TRAINING

1. The Owner shall ensure that all operators of the Biowaste and Biogas management areas at the WPCP are trained with respect to the following, as per the specific job requirements of each individual operator:

   a. terms and conditions of this Approval;

   b. relevant air, noise, wastewater and waste management legislation, regulations and guidelines;

   c. an outline of the responsibilities of WPCP personnel including roles and responsibilities during emergency situations;

   d. the procedures contained in the Operations Manual;

   e. maintenance and inspection procedures;

   f. records keeping procedures;

   g. nuisance impact control and housekeeping procedures;

h. procedures for recording and responding to public complaints;

i. the Contingency and Emergency Response Plan including exit locations and evacuation routing, and location of relevant equipment available for emergency situations;

j. environmental and occupational health and safety concerns pertaining to the wastes to be handled; and

k. emergency first-aid information.

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

a. upon commencing employment at the WPCP in a particular position;

b. whenever procedures are updated; and,

c. during the planned refresher training.

42. CONTINGENCY AND EMERGENCY RESPONSE PLAN

1. Prior to the receipt of any Biowaste at the WPCP, the Owner shall prepare and submit to the District Manager, a Contingency and Emergency Response Plan. The Plan shall be prepared in consultation with the District Manager and the local Fire Department and, as a minimum, shall include the following:

a. a site plan clearly showing all Biowaste and Biogas management areas, equipment layout and all storage areas for wastes, on-site catch basins, storm sewer outlets and nearby watercourses;

b. a list of WPCP personnel responsible for the implementation of the contingency measures and various emergency response tasks and their training requirements;

c. a list of equipment and materials required for the implementation of the contingency measures and the emergency situation response;

d. maintenance and testing program for equipment required for the implementation of the contingency measures and the emergency situation response;

e. procedures to be undertaken as part of the implementation of the contingency measures and the emergency situation response;

f. notification protocol, with names and telephone numbers of persons to be contacted, including the Owner, the WPCP personnel, the Ministry’s District Office and Spills Action Centre, the local Fire and Police Departments, the local Medical Officer of Health, the Ministry of Labour, and waste management companies available for emergency response;

g. procedures and actions to be taken should the incoming Biowaste not meet the applicable quality criteria specified in this Approval;

h. procedures and actions to be taken should the Digestate fail to meet the criteria required by the receiving site and/or the requirements under the NMA or the Fertilizers Act;

i. procedures and actions to be taken should the outgoing Residual Waste or Rejected Waste not meet the quality criteria set out in the receiving site's Environmental Compliance Approval;

j. procedures and actions to be taken should the current disposal options for the outgoing Residual Waste, Rejected Waste and the Digestate become unavailable;

k. procedures and actions to be taken should the occurrence of complaints require the Owner to suspend the Biowaste processing activities at the WPCP;

l. emergency response procedures to be undertaken in the event of a spill, process upset, power failure, flood, fire or any other emergency situation, including specific clean-up methods for wastes expected to be generated from the emergency situation;

m. procedures for waste processing management at the WPCP during the labour disruptions or transportation disruptions; and

n. description of the preventative and control measures to minimize the occurrence or impacts of any of the above incidents.

2. The Owner shall implement the recommendations of the Contingency and Emergency Response Plan, immediately upon receipt of the written concurrence from the District Manager.

3. The Contingency and Emergency Response Plan shall be reviewed on a regular basis and updated, as necessary. The revised version of the Contingency and Emergency Response Plan shall be submitted to the District Manager for comments and concurrence and it shall be implemented immediately upon receipt of the written concurrence from the District Manager.

4. An up-to-date version of the Contingency and Emergency Response Plan shall be kept at the WPCP at all times, in a central location available to all staff, and shall be available for inspection by a Provincial Officer upon request.

43. EMERGENCY SITUATIONS RESPONSE AND REPORTING

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

2. The Owner shall ensure that the equipment and materials outlined in the Contingency and Emergency Response Plan are immediately available at the WPCP at all times and are in a good state of repair and

fully operational.

3. The Owner shall ensure that all WPCP personnel are fully trained in the use of the equipment and materials outlined in the Contingency and Emergency 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 WPCP, 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 WPCP.

44. RECORD KEEPING

1. The Owner shall maintain an ongoing record of the Biowaste entering the WPCP and of any waste, including the Digestate, leaving the WPCP, and quantity of waste remaining at the WPCP (end of day reconciliation or real time totals).

2. The Owner shall maintain a written or a digital record of waste management activities undertaken at the WPCP, including a separate daily record of the Biowaste received and processed the WPCP and the Biogas/odourous air mixture treated in the Biogas upgrading area and injected into the natural gas distribution infrastructure. All measurements shall be recorded in consistent metric units of measurement. As a minimum, the record shall include the following:

    a. date of record and the name and signature of the person completing the report;

    b. time, type, quantity, quality and source of Biowaste received at the WPCP, including the incoming Biowaste characterization results, if applicable;

    c. quantity of each type of Biowaste stored, at the WPCP, including the Biowaste levels/amounts in the storage tanks and the tipping floor and the levels of the Biowaste and the Sludge mixtures in the processing tanks;

    d. quantity of Digestate produced at the WPCP and its classification as per the Ministry’s interpretation of a waste, definitions in the NMA or if destined for use as a Fertilizer*;*

    e. analytical results of any samples taken from the Biowaste and the Digestate;

    f. process monitoring results including but not limited to the daily operating temperatures of the Liquid Waste Reception Tank, Buffer Storage Tank, Pasteurization Tanks and the Anaerobic Digesters;

    g. time, type, quantity, quality, and destination (including their Environmental Compliance Approval

numbers) of the Digestate shipped off the WPCP, including any required characterization results;

h. amount of Biogas/odourous air mixture produced and the RNG injected into the natural gas distribution infrastructure; and

i. housekeeping activities, including litter collection, floor washing/cleaning activities, etc.

3. The Owner shall establish and maintain a written or a digital record of all sampling and testing activities related to the Biowaste and Biogas management activities at the WPCP. This record shall include, as a minimum, the following information:

   a. type of material sampled, sample collection location(s) and volume(s) 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 testing.

4. The Owner shall maintain a written or a digital record of all monitoring activities undertaken at the WPCP. All measurements shall be recorded in consistent metric units of measurement. As a minimum, the record shall include the following:

   a. day and time of the activity;

   b. all original records produced by the recording devices associated with the continuous monitoring devices;

   c. a summary of daily records of readings of the continuous monitoring devices, including records of all excursions from the proposed negative pressure and measured by the continuous monitoring devices, duration of the excursions, reasons for the excursions and corrective measures taken to eliminate the excursions; and

   d. results of the negative pressure and building envelope containment testing carried out in the Receiving Building.

5. The Owner shall maintain a written or a digital record of inspections and maintenance as required by this Approval. As a minimum, the record shall include the following:

   a. the name and signature of the Trained Personnel that conducted the inspection;

b. the date and time of the inspection;

c. the list of any deficiencies discovered, including the need for a maintenance or repair activity;

d. the recommendations for remedial action;

e. the date, time and description of actions (repair or maintenance) undertaken; and

f. the name and signature of the Trained Personnel who undertook the remedial action.

6. The Owner shall maintain a written or a digital record of the emergency situations. As a minimum, the record shall include the following:

   a. the type of emergency situation;

   b. description of how the emergency situation was handled;

   c. the type and amount of material spilled, if applicable, or resulting from handling of the emergency situation;

   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; and

   f. description of the preventative and control measures undertaken to minimize the potential for re-occurrence of the emergency situation in the future.

7. The Owner shall establish and maintain a written or digital record of public complaints received and the responses made as required by this Approval.

8. The Owner shall maintain a written or a digital record of training as required by this Approval. As a minimum, the record shall include the following:

   a. date of training;

   b. name and signature of person who has been trained; and

   c. description of the training provided.

45. REPORTING

1. By March 31st of each year, the Owner shall prepare and retain at the WPCP an annual report for the previous calendar year. Each report shall include, as a minimum, the following information:

   a. a signed statement that the Biowaste and Biogas management activities at the WPCP were in

compliance with the Approval;

b. a monthly summary of the type, quality and quantity of all incoming Biowaste and outgoing Digestate, Residual Waste and Rejected Waste, including analytical data required to characterize these materials;

c. material balance for each month documenting the amount of the Biowaste stored at the WPCP;

d. a monthly summary of the quality and the quantity of the Digestate shipped from the WPCP to be managed in accordance with the requirements of the NMA;

e. a monthly summary of the quality and the quantity of the Digestate shipped from the WPCP to be managed as waste in accordance with the EPA;

f. a monthly summary of the quality and the quantity of the Digestate shipped from the WPCP to be managed as a Fertilizer;

g. a monthly summary of the storage, pasteurization and anaerobic digestion processing data including operating temperature profiles and hydraulic retention duration of the Buffer Storage Tank, the Pasteurizer Tanks and the Anaerobic Digesters;

h. a monthly summary of the Biogas/odourous air mixture production;

i. dates of all public complaints relating to the WPCP together with cause of the complaints and actions taken to prevent future complaints and/or events that could lead to future complaints;

j. a summary of any emergency situations that have occurred at the WPCP, including use of over/under pressure relief valves, that have occurred at the WPCP and how they were handled;

k. a summary of all inspections and maintenance carried out at the WPCP;

l. any environmental and operational problems that could negatively impact the environment encountered during the operation of the WPCP, or during the facility inspections, and any mitigative actions taken;

m. any recommendations to improve the environmental and process performance of the WPCP in the future and to improve the monitoring programs in this regard; and

n. any other information the District Manager requires from time to time.

46. CLOSURE PLAN

1. The Owner shall submit a written Closure Plan to the District Manager six (6) months prior to closure of the Biowaste and Biogas management areas. The Plan shall include, as a minimum, a description of the work that will be done to facilitate closure of the applicable areas, or a portion of these areas, and a

schedule for completion of that work.

2. Within ten (10) days after closure of the Biowaste and Biogas management areas, or a portion of these areas, the Owner shall notify the Director and the District Manager, in writing, that the areas are closed and that the Closure Plan has been implemented.

AIR AND NOISE

47. NOISE PERFORMANCE REQUIREMENTS

1. The Owner shall:

   a. construct the Facility, implement and operate the Equipment/Facility as outlined in the Acoustic Assessment Report;

   b. implement the Noise Control Measures as outlined in the Acoustic Assessment Report;

   c. ensure that, following construction completion and the installation and commissioning of Equipment and Noise Control Measures the noise emissions from the Facility/Equipment comply with the limits set out in Ministry Publication NPC-300;

   d. ensure that the portable sludge truck pump operation, during the sludge trucks loading, is conducted in accordance to the following:

      i. the portable sludge truck pump operation, during the sludge trucks loading, is limited up to a maximum of thirty (30) minutes per sixty (60) minute period, and only during the daytime hours between 7 a.m. and 7 p.m.; and

      ii. the portable sludge truck pump is not to be used for the regular sludge trucks loading, once the future Receiving Building is in operation;

   e. maintain no idling policy (with the exception of chemical and chlorine trucks idling while unloading chemicals and chlorine, and in a given hour the waste trucks idling for the equivalent of no longer than 1 minute per truck per weight scale visit), minimum queuing period and enforce an on-site speed limit of 20 km/hr at the Facility property;

   f. ensure that any and all Trucks arrive at and depart from the Facility in accordance to the table from Section 4.2 of the Acoustic Assessment Report;

   g. ensure that any and all Trucks arrive at and depart from the Facility in accordance with the following:

      i. limit Trucks arrivals and departures during the daytime hours from 7 a.m. to 7 p.m. in accordance with the following:

- a maximum of two (2) sludge loading trucks per sixty (60) minute period;
- a maximum of two (2) chemical delivery trucks per sixty (60) minute period;
- a maximum of one (1) delivery truck per sixty (60) minute period;
- a maximum of three (3) solid Biowaste trucks per sixty (60) minute;
- a maximum of two (2) liquid Biowaste trucks per sixty (60) minute period; and
- a maximum of one (1) Residual Waste/Rejected Waste truck per sixty (60) period;

ii. limit Trucks arrivals and departures during the evening hours from 7 p.m. to 11 p.m. to a maximum of only one (1) of either solid Biowaste, liquid Biowaste and/or Residual Waste/Rejected Waste truck per sixty (60) minute period; and

iii. limit Trucks arrivals and departures during the evening hours from 11 p.m. to 7 a.m. to a maximum of only one (1) of either solid Biowaste, liquid Biowaste or Residual Waste/Rejected Waste truck per sixty (60) minute period;

h. ensure that, at all times, the overhead doors along the east wall of the Receiving Building remain fully closed, with the exception of Trucks entering and exiting; and

i. ensure that all Noise Control Measures are properly maintained and continue to provide the acoustical performance outlined in the Acoustic Assessment Report.

48. ODOUR PERFORMANCE REQUIREMENTS

1. The Owner shall operate and maintain the Waste Processing Facility so that the maximum 10-minute average concentration of odour at the most impacted Sensitive Receptor, computed in accordance with Schedule H, resulting from the operation of the Waste Processing Facility, shall not be greater than 1.0 odour unit under all atmospheric conditions.

49. 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 Receiving Building is designed and constructed such that the potential for air leakages from the building is minimised;

   b. the fully enclosed Receiving Building is maintained at a negative pressure environment, such that all potentially odourous air is collected and treated using the fully functional Photoionization System;

   c. all aspects of solid Biowaste receiving and processing are undertaken in the fully enclosed Receiving

Building;

d. all Biowaste delivered to the Facility and any Digestate and Residual Waste/Rejected Waste removed from the Facility are in covered/enclosed vehicles;

e. the Biowaste is processed in the approximate order of receipt;

f. all doors (including personal access doors) in the fully enclosed Receiving Building are kept closed at all times, except during shipping and/or receiving, and for operational/maintenance access;

g. the two (2) bay doors are not opened at the same time;

h. the two (2) bay doors in the fully enclosed Receiving Building are fast acting doors design;

i. the fully enclosed Receiving Building is equipped with negative pressure differential sensor(s) at a location(s) appropriate to avoid atmospheric interference;

j. the opening and closing of the two (2) bay doors, the negative pressure differential sensor(s) and the ventilation system 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 Receiving Building;

k. the fan blower associated with the ventilation system in the fully enclosed Receiving Building is equipped with an alarm for loss of suction, which is integrated to the SCADA system to indicate system failure and prompt all doors to remain in closed position;

l. the fully enclosed 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; and

m. the negative pressure and negative air balance for the fully enclosed 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.

3. 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 Receiving Building, then the Owner shall:

   a. ensure that critical alarms are generated and promptly communicated, included via a remote alarm, to the Trained Personnel so that corrective action(s) can be undertaken;

   b. 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

c. prepare, retain a copy at the Facility 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.

50. ODOUR MANAGEMENT PLAN

1. The Owner shall prepare and submit to the District Manager (hardcopy and electronic format), not later than three (3) months prior to receipt of any Biowaste at the Facility, review annually, and update, as necessary, an Odour Management Plan outlining the following:

   a. all aspects of operation of the Facility 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 Paragraph 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 any Biowaste at the Facility.

4. The Owner shall implement the procedures/recommendations of the Odour Management Plan.

51. PHOTOIONIZATION UNITS

1. The Owner shall ensure that the UV lamps and carbon catalysts in the Photoionization Units, serving the Photoionization System and the Post Digestate Skid Odour Treatment System, are replaced before they reach their end life and are Exhausted.

2. The Owner shall monitor the operational parameters of the Photoionization Units, serving the Photoionization System and the Post Digestate Skid Odour Treatment System, either as specified in the Manual of the Photoionization Units' manufacturer, or as deemed necessary in accordance with site operational conditions. The results of monitoring these parameters shall be recorded in a log.

3. Critical and key performance parameters of the Photoionization Units 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.

4. The Owner shall perform a quarterly review of the operational data of the Photoionization Units after its successful commissioning, including an analysis of parameter trends and their comparison to the design levels.

52. BIOGAS UPGRADING SYSTEM

1. The Owner shall ensure that the activated carbon media in the Biogas Upgrading System is replaced before it is Exhausted.

2. The Owner shall monitor the operational parameters of the Biogas Upgrading System, either as specified in the Manual of the Biogas Upgrading Systems' manufacturer, or as deemed necessary in accordance with site operational conditions. The results of monitoring these parameters shall be recorded in a log.

3. Critical and key performance parameters of the Biogas Upgrading System, including the hydrogen sulphide and the ammonia concentrations measured by the continuous emission monitor at the outlet of Biogas Upgrading System, 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.

4. The Owner shall perform a quarterly review of the operational data of the Biogas Upgrading System after its successful commissioning, including an analysis of parameter trends and their comparison to the design levels.

53. BIOGAS FLARE

1. The Owner shall maintain the Biogas Flare system, so that in the instance of a process upset and/or when the Biogas Upgrading System is inoperable, that the flare may be utilized to burn off-specification gases and as a fully functional stand-by system.

54. 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 Biowaste at the Facility, or as directed or agreed to in writing by the District Manager, for performing negative pressure assessment for the fully enclosed 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 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 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 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 Receiving Building;

d. impacts of the two (2) bay doors operating practices, including a recommendation on appropriate face-velocity on doors and entranceways;

e. air changes in the Receiving Hall 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 Receiving Building;

k. the monitoring period duration for the negative pressure assessment for the fully enclosed 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 Receiving Building, not later than three (3) months prior to receipt of any Biowaste 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 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 serving the Receiving Building 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 Receiving Hall;

        ii. whether the negative pressure monitoring system follows ideal methodology for data collection, monitoring and reporting of the negative pressure within the Receiving Building;

        iii. whether any part of the negative pressure ventilation and monitoring system is inadequate for the purposes of odour containment within the Receiving Building;

    d. recommendations including the need to install any additional fans or ducting required to maintain the appropriate face-velocity on doors and entranceways, and to maintain the target air changes per hour in the Receiving Hall, as well as the target negative pressure and target negative air balance within the Receiving Building;

4. The Owner shall implement the recommendations identified in the negative pressure assessment report, prior to receipt of any Biowaste at the Facility, 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 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.

55. START-UP REQUIREMENTS

1. The Owner shall conduct a minimum of three (3) Source Testing programs during start-up of the Photoionization System, in accordance with the procedures in Schedule I to determine the inlet and outlet concentrations of odour and total reduced sulphur (TRS) from the Photoionization System, following the multi-phase upgrades of the Anaerobic Digesters.

    a. Phase 1 Source Testing shall be completed within two (2) months after receipt of solid and liquid Biowaste at the Facility, or as directed or agreed to in writing by the District Manager, when Digester #2 is operating at 100% Sludge loading and Digester #1 is at 50% Biowaste loading;

    b. Phase 2 Source Testing shall be completed within three (3) months after receipt of solid and liquid Biowaste at the Facility, or as directed or agreed to in writing by the District Manager, when Digester #2 is operating at 100% Sludge loading and Digester #1 is at 50% Biowaste and Sludge loading;

    c. Phase 3 Source Testing shall be completed within six (6) months after receipt of solid and liquid Biowaste at the Facility, or as directed or agreed to in writing by the District Manager, when Digester #1 and Digester #2 are operating at full load.

2. During start-up, the Owner shall review the operational data of the Photoionization System after each phase of the Source Testing program to verify the removal efficiency of odour and total reduced sulphur (TRS) and confirm acceptable performance in comparison to the design levels as set out in the ESDM Report, before ramping up the Biowaste processing.

56. SOURCE TESTING REQUIREMENTS

1. The Owner shall repeat the Source Testing annually thereafter the completion of the start-up requirements of Paragraph 1 of Condition 55, in accordance with the procedures in Schedule I to determine the rates of emissions of odour and total reduced sulphur (TRS) from the Photoionization System, or at a date and frequency as directed or agreed to in writing by the District Manager.

57. OPERATION AND MAINTENANCE

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 Biowaste 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 Receiving Building as required in this Approval;

v. procedures for monitoring the performance of the Photoionization System, Post Digestate Skid Odour Treatment System and Biogas Upgrading System;

vi. the frequency of the inspection and replacement of the UV lamps and carbon catalysts in the Photoionization System and Post Digestate Skid Odour Treatment System;

vii. the frequency of the inspection and replacement of the activated carbon media in the Biogas Upgrading System; 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.

58. RECORDING KEEPING REQUIREMENTS

1. Unless otherwise specified in this Approval, the Owner shall retain, for a minimum of five (5) years from the date of their creation 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 fully enclosed 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.

59. UPDATED ACOUSTIC ASSESSMENT REPORT

1. The Owner shall submit, not later than August 1, 2020, an updated Acoustic Assessment Report, to the District Manager and the Director, for approval by the Director. If required, the updated Acoustic Assessment Report shall incorporate a Revised Noise Abatement Action Plan including:

a. a detailed description of the proposed Noise Control Measures, including individual acoustical performance specifications, such as octave band insertion and transmission losses and barrier dimensions, to reduce the noise emissions from the Facility to comply with the sound level limits set in Publication NPC-300; and

b. a detailed timetable for implementation of the Noise Control Measures.

60. ACOUSTIC AUDIT

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

   a. shall carry out Acoustic Audit measurements in accordance with the procedures in Publication NPC-103; and

   b. 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 four (4) months after full construction completion and commencement of the Equipment operation at the Facility.

2. The Director:

   a. may not accept the results of the Acoustic Audit if the requirements of Publication NPC-233 were not followed;

   b. may require the Owner to repeat the Acoustic Audit if the results of the Acoustic Audit are found unacceptable to the Director.

Schedule A

1. Application for an Environmental Compliance Approval dated December 19, 2018 and signed by Ed Dujlovic, Director of Infrastructure and Development Services, The Corporation of the City of Stratford, including the document entitled " Design and Operations Report, Stratford WPCP Co-Digestion", prepared by GHD and dated December 20, 2018.
2. E-mail from Tanya Bogoslowski, GHD, dated March 26, 2019 (8:31 a.m.) to Wojcik, Margaret, Ministry of the Environment, Conservation and Parks providing additional information on the proposal and including the following attachments:

    a. "11155678Wojcik-1 Response to the MECP March 4, 2019 Questions Regarding Request.pdf"

    b. "Stratford-Co-Digestion Development Plan-03252019.pdf"

    c. "50417-AG-01-B - RESEP GA (to MECP).pdf"

    d. "50415 - Stratford - Gas Upgrader - Description.pdf"

    e. "504715-EO-01-A - Load List (Preliminary to MECP).pdf"

3. E-mail from Tanya Bogoslowski, GHD, dated April 22, 2019 (10:19 a.m.) to Wojcik, Margaret, Ministry of the Environment, Conservation and Parks providing additional information on the proposal.

4. E-mail from Tanya Bogoslowski, GHD, dated May 24, 2019 (3:28 p.m.) to Wojcik, Margaret, Ministry of the Environment, Conservation and Parks providing additional information on the proposal and including the following attachments:

    a. "11155678Wojcik-2-Response to MECP Waste Review Questions Received April 17, 2019.pdf"

    b. "11155678-RPT3 Stratford WPCP Co Digestion rev.1.pdf"

5. An email from Indra Maharjan, Ontario Clean Water Agency, sent to Rosalinda Ahmed and dated April 8, 2019, responding to the Ministry's request for any record of historical odour complaint with respect to the operation of the Stratford Water Pollution Control Plant;
6. Revised ESDM Report, responding to the Ministry's request for a revised report prepared in accordance with the requirements of O. Reg. 419/05, prepared by GHD Ltd., and dated May 24, 2019;

7. Addendum to ESDM Report, including a CD copy of the air dispersion modelling files, prepared by GHD Ltd., and dated June 12, 2019;

8. Acoustic Assessment Report dated July 19, 2019, and signed by Michael Masschaele, GHD;

9. Letter (e-mail) dated December 19, 2019 and provided by Tanya Bogoslowski, GHD.

10. The letters (e-mails) dated February 8, March 8, 11, 13, 15, 18, 19, May 24, and July 19, 2019, and provided by Matthew Brenner and Michael Masschaele, GHD.Application for an Environmental Compliance Approval dated December 19, 2018 and signed by Ed Dujlovic, Director of Infrastructure and Development Services, The Corporation of the City of Stratford, including the document entitled " Design and Operations Report, Stratford WPCP Co-Digestion", prepared by GHD and dated December 20, 2018;

11. E-mails from Tanya Bogoslowski, GHD, sent to Rosalinda Ahmed, Ministry of the Environment, Conservation and Parks dated September 25, 2019, November 1, 2019, December 18, 2019, and January 10, 2020 providing clarification on processes and equipment design.

12. E-mail from Ed Dujlovic, Director of Infrastructure and Development Services, The Corporation of the City of Stratford, to Barb McMurray, Ministry of the Environment, Conservation and Parks, dated April 6, 2020 (1:02 p.m.) confirming the proposal of the 20-day hydraulic retention in the anaerobic digesters.

13. E-mail from Tanya Bogoslowski, GHD, sent to Nick Zambito, Ministry of the Environment, Conservation and Parks, dated May 12, 2020 confirming the operating temperatures of the hydrolysis tanks.

Schedule B

Final Effluent Design Objectives

Sanitary Sewage Concentration Objectives

Final Effluent Parameter	**Averaging Calculator**	**Objective** (milligrams per litre unless otherwise indicated)
CBOD5	Monthly Average Effluent Concentration	5.0 mg/L
Total Suspended Solids	Monthly Average Effluent Concentration	5.0 mg/L
Total Phosphorus	Monthly Average Effluent Concentration	0.1 mg/L
Unionized Ammonia	Monthly Average Effluent Concentration	0.08 mg/L
E. coli	Monthly Geometric Mean Density	*150 CFU/100 mL
pH	Single Sample Result	6.5 - 8.5 inclusive
Dissolved Oxygen	Single Sample Result	5.0 mg/L

*If the MPN method is utilized for *E.coli* analysis the objective shall be 150 MPN/100 mL

Stormwater Concentration Objective

Final Effluent Parameter	**Averaging Calculator**	**Objective** (milligrams per litre unless otherwise indicated)
BOD5	Single Sample Result	25.0 mg/L

Schedule C

Final Effluent Compliance Limits

Concentration Limits

Final Effluent Parameter	Averaging Calculator	Limit (maximum unless otherwise indicated)
CBOD5	Monthly Average Effluent Concentration	10.0 mg/L
Total Suspended Solids	Monthly Average Effluent Concentration	10.0 mg/L
Total Phosphorus	Monthly Average Effluent Concentration	0.2 mg/L
Unionized Ammonia	Single Sample Result	0.2 mg/L
Unionized Ammonia	Monthly Average Effluent Concentration	0.1 mg/L
E. coli	Monthly Geometric Mean Density	*200 CFU/100 mL
pH	Single Sample Result	between 6.0 - 9.5 inclusive
Dissolved Oxygen	Single Sample Result	minimum 4.0 mg/L

*If the MPN method is utilized for *E.coli* analysis the limit shall be 200 MPN/100 mL

Loading Limits

Final Effluent Parameter	Averaging Calculator	Limit (maximum unless otherwise indicated)
CBOD5	Monthly Average Daily Effluent Loading	306 kg/d
Total Suspended Solids	Monthly Average Daily Effluent Loading	306 kg/d
Total Phosphorus	Monthly Average Daily Effluent Loading	6.1 kg/d
Unionized Ammonia	Monthly Average Daily Effluent Loading	3.06 kg/d

Schedule D

Monitoring Program

Influent - Influent sampling point

Parameters	Sample Type	Minimum Frequency
BOD5	24 hour composite	Weekly
Total Suspended Solids	24 hour composite	Weekly
Total Phosphorus	24 hour composite	Weekly
Total Kjeldahl Nitrogen	24 hour composite	Weekly

Sanitary Sewage Final Effluent - Final Effluent sampling point

Parameters	Sample Type	Minimum Frequency
CBOD5	24 hour composite	Weekly
Total Suspended Solids	24 hour composite	Weekly
Total Phosphorus	24 hour composite	Weekly
Total Ammonia Nitrogen	24 hour composite	Weekly
Total Kjeldahl Nitrogen	24 hour composite	Weekly
Nitrate as Nitrogen	24 hour composite	Weekly
Nitrite as Nitrogen	24 hour composite	Weekly
E. coli	Grab	Weekly
Dissolved Oxygen	Grab/Probe/Analyzer	Weekly
pH*	Grab/Probe/Analyzer	Weekly
Temperature*	Grab/Probe/Analyzer	Weekly
Un-ionized Ammonia**	As Calculated	Weekly
Total Residual Chlorine / Bisulphite Residual	Grab/Analyzer	Daily (when in use)

*pH and temperature of the Final Effluent shall be determined in the field at the time of sampling for Total Ammonia Nitrogen.

**The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended.

Stormwater Management Final Effluent

Parameters	Sample Type	Minimum Frequency
BOD5	Grab	Quarterly

Sludge/Biosolids – holding tank/truck loading bay

Parameters	Sample Type	Minimum Frequency
Total Solids	Grab	Quarterly
Total Phosphorus	Grab	Quarterly
Total Ammonia Nitrogen	Grab	Quarterly
Nitrate as Nitrogen	Grab	Quarterly
Metal Scan - Arsenic - Cadmium - Cobalt - Chromium - Copper - Lead - Mercury - Molybdenum - Nickel - Potassium - Selenium - Zinc	Grab	Quarterly

Schedule E

Limited Operational Flexibility

Protocol for Pre-Authorized Modifications to Municipal Sewage Works

1. General

    1. Pre-authorized modifications are permitted only where Limited Operational Flexibility has already been granted in the Approval and only permitted to be made at the pumping stations and sewage treatment plant in the Works, subject to the conditions of the Approval.

    2. Where there is a conflict between the types and scope of pre-authorized modifications listed in this document, and the Approval where Limited Operational Flexibility has been granted, the Approval shall take precedence.

    3. The Owner shall consult the District Manager on any proposed modifications that may fall within the scope and intention of the Limited Operational Flexibility but is not listed explicitly or included as an example in this document.

    4. The Owner shall ensure that any pre-authorized modifications will not:

        a. adversely affect the hydraulic profile of the Sewage Treatment Plant or the performance of any upstream or downstream processes, both in terms of hydraulics and treatment performance;

        b. result in new Overflow or Bypass locations, or any potential increase in frequency or quantity of Overflow(s) or Bypass(es).

        c. result in a reduction in the required Peak Flow Rate of the treatment process or equipment as originally designed.

2. Modifications that do not require pre-authorization:

    1. Sewage works that are exempt from Ministry approval requirements;

    2. Modifications to the electrical system, instrumentation and control system.

3. Pre-authorized modifications that do not require preparation of “Notice of Modification to Sewage Works”

    1. Normal or emergency maintenance activities, such as repairs, renovations, refurbishments and replacements with Equivalent Equipment, or other improvements to an existing approved piece of equipment of a treatment process do not require pre-authorization. Examples of these activities are:

        a. Repairing a piece of equipment and putting it back into operation, including replacement of minor

components such as belts, gear boxes, seals, bearings;

b. Repairing a piece of equipment by replacing a major component of the equipment such as motor, with the same make and model or another with the same or very close power rating but the capacity of the pump or blower will still be essentially the same as originally designed and approved;

c. Replacing the entire piece of equipment with Equivalent Equipment.

2. Improvements to equipment efficiency or treatment process control do not require pre-authorization. Examples of these activities are:

a. Adding variable frequency drive to pumps;

b. Adding on-line analyzer, dissolved oxygen probe, ORP probe, flow measurement or other process control device.

4. Pre-Authorized Modifications that require preparation of "Notice of Modification to Sewage Works"

1. Pumping Stations

a. Replacement, realignment of existing sewers including manholes, valves, gates, weirs and associated appurtenances provided that the modifications will not add new influent source(s) or result in an increase in flow from existing sources as originally approved.

b. Extension or partition of wetwell to increase retention time for emergency response and improve station maintenance and pump operation;

c. Replacement or installation of inlet screens to the wetwell;

d. Replacement or installation of flowmeters, construction of station bypass;

e. Replacement, reconfiguration or addition of pumps and modifications to pump suctions and discharge pipings including valve, gates, motors, variable frequency drives and associated appurtenances to maintain firm pumping capacity or modulate the pump rate provided that the modifications will not result in a reduction in the firm pumping capacity or discharge head or an increase in the peak pumping rate of the pumping station as originally designed;

f. Replacement, realignment of existing forcemain(s) including valves, gates, and associated appurtenances provided that the modifications will not reduce the flow capacity or increase the total dynamic head and transient in the forcemain.

2. Sewage Treatment Plant

1. Sewers and appurtenances

a. Replacement, realignment of existing sewers (including pipes and channels) or construction of new sewers, including manholes, valves, gates, weirs and associated appurtenances within the a sewage treatment plant, provided that the modifications will not add new influent source(s) or result in an increase in flow from existing sources as originally approved and that the modifications will remove hydraulic bottlenecks or improve the conveyance of sewage into and through the Works.

2. Flow Distribution Chambers/Splitters

a. Replacement or modification of existing flow distribution chamber/splitters or construction of new flow distribution chamber/splitters, including replacements or installation of sluice gates, weirs, valves for distribution of flows to the downstream process trains, provided that the modifications will not result in a change in flow distribution ratio to the downstream process trains as originally designed.

3. Imported Sewage Receiving Facility

1. Replacement, relocation or installation of loading bays, connect/disconnect hook-up systems and unloading/transferring systems;

2. Replacement, relocation or installation of screens, grit removal units and compactors;

3. Replacement, relocation or installation of pumps, such as dosing pumps and transfer pumps, valves, piping and appurtenances;

4. Replacement, relocation or installation of storage tanks/chambers and spill containment systems;

5. Replacement, relocation or installation of flow measurement and sampling equipment;

6. Changes to the source(s) or quantity from each source, provided that changes will not result in an increase in the total quantity and waste loading of each type of Imported Sewage already approved for co-treatment.

4. Preliminary Treatment System

a. Replacement of existing screens and grit removal units with equipment of the same or higher process performance technology, including where necessary replacement or upgrading of existing screenings dewatering washing compactors, hydrocyclones, grit classifiers, grit pumps, air blowers conveyor system, disposal bins and other ancillary equipment to the screening and grit removal processes.

b. Replacement or installation of channel aeration systems, including air blowers, air supply main, air headers, air laterals, air distribution grids and diffusers.

5. Primary Treatment System

    a. Replacement of existing sludge removal mechanism, including sludge chamber;

    b. Replacement or installation of scum removal mechanism, including scum chamber;

    c. Replacement or installation of primary sludge pumps, scum pumps, provided that:the modifications will not result in a reduction in the firm pumping capacity or discharge head that the primary sludge pump(s) and scum pump(s) are originally designed to handle.

6. Secondary Treatment System

    1. Biological Treatment

        a. Conversion of complete mix aeration tank to plug-flow multi-pass aeration tank, including modifications to internal structural configuration;

        b. Addition of inlet gates in multi-pass aeration tank for step-feed operation mode;

        c. Partitioning of an anoxic/flip zone in the inlet of the aeration tank, including installation of submersible mixer(s);

        d. Replacement of aeration system including air blowers, air supply main, air headers, air laterals, air distribution grids and diffusers, provided that the modifications will not result in a reduction in the firm capacity or discharge pressure that the blowers are originally designed to supply or in the net oxygen transferred to the wastewater required for biological treatment as originally required.

    2. Secondary Sedimentation

        a. Replacement of sludge removal mechanism, including sludge chamber;

        b. Replacement or installation of scum removal mechanism, including scum chamber;

        c. Replacement or installation of return activated sludge pump(s), waste activated sludge pump(s), scum pump(s), provided that the modifications will not result in a reduction in the firm pumping capacity or discharge head that the activated sludge pump(s) and scum pump(s) are originally designed to handle.

7. Post-Secondary Treatment System

    a. Replacement of filtration system with equipment of the same filtration technology, including feed pumps, backwash pumps, filter reject pumps, filtrate extract pumps, holding tanks associated with the pumping system, provided that the modifications will not result in a reduction in the capacity of

the filtration system as originally designed.

8. Disinfection System

    1. UV Irradiation

        a. Replacement of UV irradiation system, provided that the modifications will not result in a reduction in the design capacity of the disinfection system or the radiation level as originally designed.

    2. Chlorination/Dechlorination and Ozonation Systems

        a. Extension and reconfiguration of contact tank to increase retention time for effective disinfection and reduce dead zones and minimize short-circuiting;

        b. Replacement or installation of chemical storage tanks, provided that the tanks are provided with effective spill containment.

9. Supplementary Treatment Systems

    1. Chemical systems

        a. Replacement, relocation or installation of chemical storage tanks for existing chemical systems only, provided that the tanks are sited with effective spill containment;

        b. Replacement or installation of chemical dosing pumps provided that the modifications will not result in a reduction in the firm capacity that the dosing pumps are originally designed to handle.

        c. Relocation and addition of chemical dosing point(s) including chemical feed pipes and valves and controls, to improve phosphorus removal efficiency;

        d. Use of an alternate chemical provided that it is a non-proprietary product and is a commonly used alternative to the chemical approved in the Works, provided that the chemical storage tanks, chemical dosing pumps, feed pipes and controls are also upgraded, as necessary..

10. Sludge Management

    1. Sludge Thickening

        a. Replacement or installation of sludge handling pumps, such as transfer pumps, feed pumps, recirculation pumps, provided that modifications will not result in reduction in the solids storage or handling capacities;

    2. Imported Sewage

a. Changes to the source(s) or quantity from each source, provided that changes will not result in an increase in the total quantity already approved for co-processing.

11. Standby Power System

    1. Replacement or installation of standby power system, including feed from alternate power grid, emergency power generator, fuel supply and storage systems, provided that the existing standby power generation capacity is not reduced.

12. Pilot Study

    1. Small side-stream pilot study for existing or new technologies, alternative treatment process or chemical, provided:

        i. all effluent from the pilot system is hauled off-site for proper disposal or returned back to the sewage treatment plant for at a point no further than immediately downstream of the location from where the side-stream is drawn;

        ii. no proprietary treatment process or propriety chemical is involved in the pilot study;

        iii. the effluent from the pilot system returned to the sewage treatment plant does not significantly alter the composition/concentration of or add any new contaminant/inhibiting substances to the sewage to be treated in the downstream process;

        iv. the pilot study will not have any negative impacts on the operation of the sewage treatment plant or cause a deterioration of effluent quality;

        v. the pilot study does not exceed a maximum of two years and a notification of completion shall be submitted to the District Manager within one month of completion of the pilot project.

13. Lagoons

    a. installing baffles in lagoon provided that the operating capacity of the lagoon system is not reduced;

    b. raise top elevation of lagoon berms to increase free-board;

    c. replace or install interconnecting pipes and chambers between cells, provided that the process design operating sequence is not changed;

    d. replace or install mechanical aerators, or replace mechanical aerators with diffused aeration system provided that the mixing and aeration capacity are not reduced;

    e. removal of accumulated sludge and disposal to an approved location offsite.

3. Final Effluent Disposal Facilities

    1. Replacement or realignment of the Final Effluent channel, sewer or forcemain, including manholes, valves and appurtenances from the end of the treatment train to the discharge outfall section, provided that the sewer conveys only effluent discharged from the Sewage Treatment Plant and that the replacement or re-aligned sewer has similar dimensions and performance criteria and is in the same or approximately the same location and that the hydraulic capacity will not be reduced.

This page contains an image of the form entitled "Notice of Modification to Sewage Works". A digital copy can be obtained from the District Manager.

Ontario

Ministry of the Environment, Conservation and Parks

Notice of Modification to Sewage Works

RETAIN COPY OF COMPLETED FORM AS PART OF THE ECA ON-SITE PRIOR TO THE SCHEDULED IMPLEMENTATION DATE.

Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility

(Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)

ECA Number	Issuance Date (mm/dd/yy)	Notice number (if applicable)

ECA Owner	Municipality

Part 2: Description of the modifications as part of the Limited Operational Flexibility

(Attach a detailed description of the sewage works)

Description shall include:
1. A detail description of the modifications and/or operations to the sewage works (e.g. sewage work component, location, size, equipment type/model, material, process name, etc.)
2. Confirmation that the anticipated environmental effects are negligible.
3. List of updated versions of, or amendments to, all relevant technical documents that are affected by the modifications as applicable, i.e. submission of documentation is not required, but the listing of updated documents is (design brief, drawings, emergency plan, etc.)

Part 3 – Declaration by Professional Engineer

I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:
1. Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario;
2. Has been designed in accordance with the Limited Operational Flexibility as described in the ECA;
3. Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry's best management practices, and demonstrating ongoing compliance with s.53 of the Ontario Water Resources Act; and other appropriate regulations.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name (Print)	PEO License Number

Signature	Date (mm/dd/yy)

Name of Employer

Part 4 – Declaration by Owner

I hereby declare that:
1. I am authorized by the Owner to complete this Declaration;
2. The Owner consents to the modification; and
3. This modifications to the sewage works are proposed in accordance with the Limited Operational Flexibility as described in the ECA.
4. The Owner has fulfilled all applicable requirements of the *Environmental Assessment Act*.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate

Name of Owner Representative (Print)	Owner representative's title (Print)

Owner Representative's Signature	Date (mm/dd/yy)

EAPB Form July 26, 2018

Schedule F
Methodology for Calculating and Reporting
Monthly Average Effluent Concentration, Annual Average Effluent Concentration and Monthly Geometric Mean Density

1. Monthly Average Effluent Concentration

Step 1: Calculate the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month and proceed as follows depending on the result of the calculation:

a. If the arithmetic mean does not exceed the compliance limit for the contaminant, then report and use this arithmetic mean as the Monthly Average Effluent Concentration for this parameter where applicable in this Approval;

b. If the arithmetic mean exceeds the compliance limit for the contaminant and there was no Bypass Event during the calendar month, then report and use this arithmetic mean as the Monthly Average Effluent Concentration for this parameter where applicable in this Approval;

c. If the arithmetic mean exceeds the compliance limit for the contaminant and there was Bypass Event(s) during the calendar month, then proceed to Step 2;

d. If the arithmetic mean does not exceed the compliance limit for the contaminant and there was Bypass Event(s) during the calendar month, the Owner may still elect to proceed to Step 2 calculation of the flow-weighted arithmetic mean.

Step 2: Calculate the flow-weighted arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar month and proceed depending on the result of the calculation:

a. Group No Bypass Days (**NBPD**) data and Bypass Days (**BPD**) data during a calendar month separately;

b. Calculate the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured on all NBPD during a calendar month and record it as **Monthly Average NBPD Effluent Concentration**;

c. Obtain the "**Total Monthly NBPD Flow**" which is the total amount of Final Effluent discharged on all NBPD during the calendar month;

d. Calculate the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured on all BPD during a calendar month and record it as **Monthly Average BPD Effluent Concentration**;

e. Obtain the "**Total Monthly BPD Flow**" which is the total amount of Final Effluent discharged on all BPD during the calendar month;

f. Calculate the flow-weighted arithmetic mean using the following formula:

[(Monthly Average NBPD Effluent Concentration × Total Monthly NBPD Flow) + (Monthly Average BPD Effluent Concentration × Total Monthly BPD Flow)] ÷ (Total Monthly NBPD Flow + Total Monthly BPD Flow)

It should be noted that in this method, if there are no Bypass Event for the month, the calculated result would be the same as the non-flow-weighted arithmetic mean method;

g. Report and use the lesser of the flow-weighted arithmetic mean obtained in Step 2 and the arithmetic mean obtained in Step 1 as the Monthly Average Effluent Concentration for this parameter where applicable in this Approval.

2. Annual Average Effluent Concentration

Step 1: Calculate the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar year and proceed as follows depending on the result of the calculation:

a. If the arithmetic mean does not exceed the compliance limit for the contaminant, then report and use this arithmetic mean as the Annual Average Effluent Concentration for this parameter where applicable in this Approval;

b. If the arithmetic mean exceeds the compliance limit for the contaminant and there was no Bypass Event during the calendar year, then report and use this arithmetic mean as the Annual Average Effluent Concentration for this parameter where applicable in this Approval;

c. If the arithmetic mean exceeds the compliance limit for the contaminant and there was Bypass Event(s) during the calendar year, then proceed to Step 2;

d. If the arithmetic mean does not exceed the compliance limit for the contaminant and there was Bypass Event(s) during the calendar year, the Owner may still elect to proceed to Step 2 calculation of the flow-weighted arithmetic mean.

Step 2: Calculate the flow-weighted arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured during a calendar year and proceed depending on the result of the calculation:

a. Group No Bypass Days (**NBPD**) data and Bypass Days (**BPD**) data during a calendar year separately;

b. Calculate the arithmetic mean of all Single Sample Results of the concentration of a

contaminant in the Final Effluent sampled or measured on all NBPD during a calendar year and record it as **Annual Average NBPD Effluent Concentration**;

c. Obtain the "**Total Annual NBPD Flow**" which is the total amount of Final Effluent discharged on all NBPD during the calendar year;

d. Calculate the arithmetic mean of all Single Sample Results of the concentration of a contaminant in the Final Effluent sampled or measured on all BPD during a calendar year and record it as **Annual Average BPD Effluent Concentration**;

e. Obtain the "**Total Annual BPD Flow**" which is the total amount of Final Effluent discharged on all BPD during the calendar year;

f. Calculate the flow-weighted arithmetic mean using the following formula:

[(Annual Average NBPD Effluent Concentration × Total Annual NBPD Flow) + (Annual Average BPD Effluent Concentration × Total Annual BPD Flow)] ÷ (Total Annual NBPD Flow + Total Annual BPD Flow)

It should be noted that in this method, if there are no Bypass Event for the calendar year, the calculated result would be the same as the non-flow-weighted arithmetic mean method;

g. Report and use the lesser of the flow-weighted arithmetic mean obtained in Step 2 and the arithmetic mean obtained in Step 1 as the Annual Average Effluent Concentration for this parameter where applicable in this Approval.

3. Monthly Geometric Mean Density

Geometric mean is defined as the n^{th} root of the product of n numbers. In the context of calculating Monthly Geometric Mean Density for *E.coli*, the following formula shall be used:

$$\sqrt[n]{x_1 x_2 x_3 \cdots x_n}$$

in which,

"n" is the number of samples collected during the calendar month; and

"x" is the value of each Single Sample Result.

For example, four weekly grab samples were collected and tested for *E.coli* during the calendar month. The *E.coli* densities in the Final Effluent were found below:

Sample Number	*E.coli* Densities* (CFU/100 mL)
1	10
2	100
3	300
4	50

The Geometric Mean Density for these data:

$$\sqrt[4]{10 \times 100 \times 300 \times 50} = 62$$

*If a particular result is zero (0), then a value of one (1) will be substituted into the calculation of the Monthly Geometric Mean Density. If the MPN method is utilized for *E. coli* analysis, values in the table shall be in MPN/100 mL

Schedule G

Municipal and Local Services Board Wastewater System
Profile Information Form

(For reference only, images of the form are attached on the next four pages. A digital copy can be obtained from the District Manger.)

Ontario

Ministry of the Environment and Climate Change

Municipal and Local Services Board Wastewater System Profile Information Form

The information in this form is necessary to administer the Ministry's approvals, compliance and enforcement programs with respect to wastewater treatment and collection systems owned by municipalities and local services boards. These programs are authorized under the *Ontario Water Resources Act*, the *Environmental Protection Act*, the *Nutrient Management Act* and their respective regulations.

Email the completed form to: waterforms@ontario.ca
For any questions call 1-866-793-2588.

[A] SYSTEM PROFILE INFORMATION

Wastewater System Number *(if assigned)*

☐ New Profile
☐ Update Existing Profile

Name of System

Name of Municipality or Local Services Board

Level of Treatment (select one*)
☐ Primary
☐ Secondary
☐ Tertiary
☐ Secondary Equivalent
☐ Other (specify):
**See Terms and Concepts on page 4*

Population Served | Population (Design)

Type of System
☐ Treatment & Collection System ☐ Collection System Only

Design Rated Capacity (m^3/day)	Peak Flow Rate (m^3/day)	Current Environmental Compliance Approval (ECA) Number	Current ECA Issue Date (yyyy/mm/dd):

The treatment plant receives sewage from: (Check all that applies.* If you have checked more than one option below, indicate the approximate %)

☐ Sanitary Sewer ☐ Combined Sewer
☐ Nominally Separated Sewer ☐ Partially Separated Sewer **See Terms and Concepts on page 4*

[B] OWNER INFORMATION

Legal Name of Municipality or Local Services Board

Unit No	Street No.	Street Name.	Street Type (St, Rd, etc)	Street Direction (N,S,E,W)

PO Box	City/Town	Postal Code

☐ Dr ☐ Miss ☐ Mr ☐ Mrs ☐ Ms	Owner Contact First Name	Owner Contact Last Name	Owner Contact Job Title

Tel. No.	Fax Number	Email address
( ) - ext.	( ) -	

[C] OPERATING AUTHORITY ☐ Check if same as owner

Legal Name of Operator

Unit No	Street No.	Street Name.	Street Type (St, Rd, etc)	Street Direction (N,S,E,W)

PO Box	City/Town	Postal Code

☐ Dr ☐ Miss ☐ Mr ☐ Mrs ☐ Ms	Operator Contact First Name	Operator Contact Last Name	Operator Contact Job Title

Tel. No.	Fax Number	Email address
( ) - ext.	( ) -	

[D] 24/7 CONTACT

☐ Dr ☐ Miss ☒ Mr ☐ Mrs ☐ Ms	First Name	Last Name	Job Title
Tel. No. ( ) - ext.	Fax Number ( ) -	Email address	

[E] SYSTEM CIVIC LOCATION ADDRESS (I.E. ADDRESS OF TREATMENT PLANT)

Unit No	Street No.	Street Name.	Street Type (St, Rd, etc)	Street Direction (N,S,E,W)

PO Box	City/Town	Postal Code

If the Wastewater System has no street address

Geographical Township	Lot	Concession

Geographical Referencing (if known, enter the Geographical Reference Information for this Wastewater System)

Map Datum	Geo-Referencing Method	Accuracy Estimate	Location Reference	
Latitude	**Longitude**	**Zone**	**Easting**	**Northing**

[F] TREATMENT PROCESS

Preliminary	Primary	Secondary	Secondary Equivalent	Post-Secondary	Additional Treatment
☐ Screening ☐ Shredding/ grinding ☐ Grit Removal ☐ Other(specify):	☐ Settling/sedimentation/ clarification ☐ Scum Removal ☐ Polymer Addition ☐ Other(specify):	☐ Conventional Activated Sludge (CAS) ☐ Extended Aeration ☐ Membrane Bioreactor (MBR) ☐ Sequencing Batch Reactor (SBR) ☐ Rotating Biological Contactor (RBC) ☐ Trickling Filter (TF) ☐ Biological Aerated Filter (BAF) ☐ Other(specify):	☐ Aerated Lagoon ☐ Facultative Lagoon ☐ Anaerobic Lagoon ☐ Aerobic Lagoon ☐ Other(specify):	☐ Filtration ☐ Clarification ☐ Intermittent Sand Filter (after lagoons) ☐ Polishing Wetlands ☐ Polishing Lagoons ☐ Other(specify):	☐ Phosphorous Removal ☐ Biological ☐ Chemical If chemical is used, specify: ☐ Nitrification ☐ Denitrification ☐ Other(specify):

[G] DISINFECTION

Method of Disinfection	Disinfection Period
☐ Chlorination If you chlorinate, do you practice de-chlorination? ☐ Yes ☐ No	☐ Continuous ☐ Seasonal
☐ Ultraviolet Irradiation	☐ Continuous ☐ Seasonal
☐ Other (specify):	☐ Continuous ☐ Seasonal

[H] SLUDGE	
Sludge Stabilization Process	Method of Sludge Disposal/Utilization
☐ Aerobic Digestion	☐ Agricultural
☐ Anaerobic Digestion	☐ Landfill
☐ Drying & Pelletization	☐ Incineration
☐ Lime Treatment	☐ Other (specify):
☐ Composting	
☐ Other (specify):	
Available Sludge Storage Capacity (m^3):	

[I] EFFLUENT	
Effluent Disposal Method	Effluent Discharge Frequency
☐ Surface Water Receiving Water Body Name:	☐ Continuous ☐ Seasonal
☐ Subsurface	☐ Continuous ☐ Seasonal
☐ Other (specify):	☐ Continuous ☐ Seasonal

Is the effluent discharged in a vulnerable area identified in the local source protection assessment report approved under the Clean Water Act, 2006?
☐ Yes ☐ No

[J] INFLUENT

Does the plant receive sewage from another municipality or local services board either through an interconnected collection system or hauled sewage?
☐ Yes ☐ No
(if yes, name(s) of other municipality or local services board):

Plant receives:
☐ Leachate (approximate annual volume in m^3):
☐ Septage (approximate annual volume in m^3):
☐ Industrial input (approximate annual volume in m^3):
or (approximate volume in %):

Terms and Concepts

The following Terms and Concepts are provided to assist you when completing Wastewater System Profile Information Form.

In order to determine the level of treatment that applies to the wastewater system, the effluent quality objectives that the wastewater treatment plant was designed to meet must be considered. The process based approach often used in the past has led to confusion and is open to interpretation due to recent developments and practices in the wastewater treatment industry. For example, a plant with a high rate filter (often referred to as a tertiary filter) after its secondary treatment was considered a tertiary treatment in the past since the filter was designed and operated to produce a tertiary quality effluent. However, secondary plants are now being constructed with these filters as a safeguard against any potential secondary clarifier performance degradation and not for the purpose of ensuring tertiary treatment performance. Also, new technologies have evolved that can produce tertiary quality effluent without having these high rate filters (e.g., membrane bioreactors). Lagoons were considered in the past as being capable of providing only secondary equivalent treatment. However, with add-on treatment after the lagoons (e.g. intermittent sand filters), many lagoon treatment systems are capable of producing secondary or tertiary quality effluent.

During the establishment of sewage works, site-specific effluent limits (including averaging periods) are provided by the Ministry's Regional Technical Support Section, considering the assimilative capacity of the receivers and the minimum treatment requirements provided in Procedure F-5-1. The designer of the sewage works then selects objective values that are acceptable to the Ministry and are less (i.e. more stringent) than the effluent limits, in order to provide an adequate safety factor based on the designer's confidence/experience with the technology chosen and other site-specific conditions. The sewage works are then designed (and operated) to meet these design objectives in a reliable and consistent manner. Therefore, the values that are to be used in the determination of the level of treatment that applies to the sewage works must be based on the design objectives, and not the effluent limits.

Two common parameters used in almost all sewage works performance evaluations are $CBOD_5$ (carbonaceous biochemical oxygen demand) (BOD_5 – biochemical oxygen demand - for primary sewage works) and total suspended solids (TSS). Therefore, it is logical that the **objective values** of these two parameters are used to determine the level of treatment at the sewage works.

Level of Treatment:

Primary:
Wastewater treatment plants that have only settling/sedimentation (with or without chemical addition) and designed, approved and operated to reliably and consistently produce 30% and 50% or better reduction of BOD_5 and TSS respectively are considered primary plants (MOE Procedures F-5-1 and F-5-5).

Secondary:
Wastewater treatment plants that have biological processes (e.g. activated sludge process and its variations, fixed film processes) or physical-chemical processes designed, approved and operated to reliably and consistently produce an effluent quality of $CBOD_5$ and TSS of 15 mg/L or better are considered secondary plants (Section 8.2, MOE Design Guidelines for Sewage Works, 2008).

Secondary Equivalent:
Wastewater treatment plants designed, approved and operated to reliably and consistently produce an effluent quality of $CBOD_5$ of 25 mg/L and TSS of 30 mg/L or better are considered as secondary equivalent plants (Section 8.2, MOE Design Guidelines for Sewage Works, 2008).

Note: Wastewater treatment plants that provide only primary settling of solids and the addition of chemicals to improve the removal of TSS (and phosphorus) are not considered as secondary treatment plants or secondary equivalent plants (Section 8.2, MOE Design Guidelines for Sewage Works, 2008) even if they produce secondary or secondary equivalent effluent quality.

Tertiary:
Wastewater treatment plants that have biological processes (e.g. activated sludge process and its variations, fixed film processes) and/or physical-chemical processes designed, approved and operated to reliably and consistently produce an effluent quality of $CBOD_5$ and TSS of 5 mg/L or better are considered tertiary plants (adapted from Section 15.2.1, MOE Design Guidelines for Sewage Works, 2008).

Note: Biological processes such as nitrification, denitrification and enhanced biological phosphorus removal can be part of either a secondary or tertiary treatment plant. They may be described as secondary treatment plant with nitrification, secondary treatment plant with enhanced biological phosphorus removal, tertiary treatment plant with nitrification etc.

Sewer System Type:

Sanitary Sewers:
Pipes that convey sanitary sewage flows made up of wastewater discharges from residential, commercial, institutional and industrial establishments plus extraneous flow components from such sources as groundwater and surface run off.

Combined Sewers:
Pipes that convey both sanitary sewage and stormwater runoff through a single-pipe system.

Partially Separated Sewers:
Exist when either a portion of the combined sewer area was retrofitted to separate (sanitary and storm) sewers and/or a service area with combined sewers has had a new development area with separate sewers added to the service area; whatever the case may be, the final flows will be combined sewage.

Nominally Separated Sewers:
These sewers are constructed as separate sewers, but the sanitary sewers accept stormwater from roof and foundation drains (i.e., these are separated sewers in name only).

SCHEDULE H

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 I

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 Photoionization System at the time of testing, including the quantity of Biowaste received, the quantity of Biowaste on the tipping floor, volumetric flow rate to the Photoionization System, monitored parameters of the Photoionization System, etc.;

        c. description of the emission sources controlled by the Photoionization System at the time of testing;

        d. records of weather conditions such as ambient temperature and relative humidity, wind speed and direction at the time of testing; and

        e. operational description of the general building ventilation serving the fully enclosed Receiving Building at the time of testing;

    4. results of Source Testing, including the emission rate, emission concentration, relevant emission factor of odour and total reduced sulphur from the Photoionization System.

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:

1. Conditions 1, 5, 6, 7 and 10 are included to clarify the legal rights and responsibilities of the Owner.

2. Conditions 2, 3 and 4 regarding is included to ensure that the Works are constructed and operated in accordance with the Approval and that record drawings of the Works "as constructed" are updated and maintained for future references.

3. Condition 8 regarding change of Owner and Operating Agency is included to ensure that the Ministry records are kept accurate and current with respect to ownership and Operating Agency of the Works and to ensure that subsequent owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.

4. Condition 9 is included to ensure that the appropriate Ministry staff has ready access to the operations of the WPCP 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.

5. Condition 11 is included to ensure that the Works' users, operators and the public are fully aware of important information and restrictions related to the operation of the WPCP. Condition 12 is also included to ensure that the WPCP 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 WPCP is closed and no WPCP personnel is on duty.

6. Condition 12 is included to require the Owner to respond to any environmental complaints resulting from the operations at the WPCP appropriately and in a timely manner and that appropriate actions are taken to prevent any further incidents that may cause complaints in the future.

7. Condition 13 regarding Bypasses is included to indicate that Bypass is prohibited, except in circumstances where the failure to Bypass could result in greater damage to the environment than the Bypass itself. The notification and documentation requirements allow the Ministry to take action in an informed manner and will ensure the Owner is aware of the extent and frequency of Bypass Events.

8. Condition 14 regarding Overflows is included to indicate that Overflow of untreated or partially treated sewage to the receiver is prohibited, except in circumstances where the failure to Overflow could result in greater damage to the environment than the Overflow itself. The notification and documentation requirements allow the Ministry to take action in an informed manner and will ensure the Owner is aware of the extent and frequency of Overflow Events.

9. Condition 15 regarding design objectives is imposed to establish non-enforceable design objectives to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs.

10. Condition 16 regarding compliance limits is imposed to ensure that the Final Effluent discharged from the Works to the environment meets the Ministry's effluent quality requirements.

11. Condition 17 regarding operation and maintenance is included to require that the Works be properly operated, maintained, funded, staffed and equipped such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented. As well, the inclusion of a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the Owner. Such a manual is an integral part of the operation of the Works. Its compilation and use should assist the Owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the Owner's operation of the Works.

12. Condition 18 regarding monitoring and recording is included to enable the Owner to evaluate and demonstrate the performance of the Works, on a continual basis, so that the Works are properly operated and maintained at a level which is consistent with the design objectives and compliance limits.

13. Condition 19 regarding Limited Operational Flexibility is included to ensure that the Works are constructed, maintained and operated in accordance with the Approval, and that any pre-approved modification will not negatively impact on the performance of the Works.

14. Condition 20 regarding reporting is included to provide a performance record for future references, to ensure that the Ministry is made aware of problems as they arise, and to provide a compliance record for this Approval.

15. Condition 21 is included to specify the approved Biowaste types and the service area from which the Biowaste may be accepted at the WPCP based on the Owner’s application and supporting documentation.

16. Condition 22 is included to specify the approved Biowaste receipt rate, the areas that the Biowaste may be stored at the WPCP, and the storage limits of the Biowaste based on the Owner’s application and supporting

documentation.

17. Condition 23 is included to specify the hours of operation for the WPCP 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.

18. Condition 24 is included to ensure that only the approved the Waste types are accepted and handled/processed at the WPCP.

19. Condition 25 is included to ensure that Residual and Rejected Waste storage and management 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.

20. Condition 25 is included to set out the Waste management activities approved under this Approval as proposed in the application and supporting documentation submitted by the Owner, and as considered by the Director.

21. Conditions 26, 27, 28, 29, 30, 31, 32, 36 and 39 are included to ensure that management of the approved Wastes and of wastewater resulting from the waste management activities, are undertaken in a way which does not result in an Adverse Effect or a hazard to the environment or any person and is 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 28 is also included to specify the storage processing parameters for a properly functioning operation as per consensus in the industry and the Ministry's requirements.

22. Condition 33 is included to ensure that the Owner regularly tests the Biowaste received for processing at the WPCP to verify its compatibility with the proposed proposed processing and the proposed final end-use of the Digestate.

23. Condition 34 is included to ensure that the Owner regularly tests the Digestate generated at the WPCP to verify its compatibility with the proposed final end-use.

24. Condition 35 is included to set out the approved proposed final end-use as proposed in the application and supporting documentation submitted by the Owner and considered by the Director. Condition 35 is also included to set out notification requirements to the owners of the Digestate final end-use receiving sites.

25. Condition 36 is included to require the Biowaste and Biogas management areas, including the Biowaste and Biogas processing equipment, to be inspected and the Biowaste and Biogas processing equipment be maintained thoroughly and on a regular basis to ensure that the operations at the WPCP 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.

26. Condition 37 is included to list the prohibitions applicable to the operation of the WPCP since the activities were not a part of the Owner's application and were not considered by the Director.

27. Condition 38 is included to ensure that the areas where Biowaste and Biogas management is carried out, are operated and maintained in an environmentally acceptable manner which does not result in a negative impact on the natural environment or any person.

28. Conditions 40 and 41 are 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.

29. Condition 42 is included to ensure that the Owner is prepared and properly equipped to take action in the event of an emergency situation.

30. Condition 43 is included to require further spill notification to the Ministry, in addition to the requirements already listed in Part X of the EPA.

31. Condition 44 is included to ensure that detailed records of Biowaste and Biogas management activities, inspections, monitoring and upsets are recorded and maintained for inspection and information purposes.

32. Condition 45 is to ensure that regular review of Biowaste and Biogas management activities, operations and monitoring is carried out and findings are for determining whether or not the Biowaste and Biogas management is being operated in compliance with this Approval, the EPA and its regulations and whether or not any changes should be considered.

33. Condition 46 is included to ensure that final closure of the Biowaste and Biogas management areas is completed in accordance with Ministry's standards.

34. Conditions 47 and 48 are included to provide the minimum performance requirements considered necessary to prevent an adverse effect resulting from the operation of the Facility.

35. Condition 49 is included to require the Owner to properly operate and maintain the Facility/ Equipment to minimize the impact to the environment.

36. Conditions 50, 51, 52, 53 and 57 are included to emphasize that the Facility/ Equipment must be maintained and operated according to a procedure that will result in compliance with the EPA, the Regulations and this Approval.

37. Conditions 54, 55 and 56 are included to require the Owner to gather accurate information so that compliance with the EPA, the Regulations and this Approval can be verified.

38. Condition 58 is included to require the Owner to retain all documentation related to this Approval and provide access to employees in or agents of the Ministry, upon request, so that compliance with the EPA, the Regulations and this Approval can be verified.

39. Condition 59 is included to require the Owner to submit an updated Acoustic Assessment Report incorporating a Revised Noise Abatement Action Plan to reduce the noise emissions from the Facility to comply with the applicable limits set in the Ministry's Noise Guidelines.

40. Paragraph 1 of Condition 60 is included to require the Owner to gather accurate information so that the environmental impact and subsequent compliance with the EPA, the regulations and this Approval can be verified.

41. Paragraph 2 of Condition 60 is included to ensure that the Acoustic Audit is carried out in accordance with procedures set in the Ministry's Noise Guidelines.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 7526-B2UKVJ issued on December 13, 2018.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The 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 Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 10th day of June, 2020

Fariha Pannu.

Fariha Pannu, P.Eng.
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

NZ/
c: District Manager, MECP London - District
Tanya Bogoslowski, GHD