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Tracking Number:

Authorization Number: 103921

**REGISTERED MAIL**

Fraser Valley Biogas Ltd.  
1200 Waterfront Centre  
200 Burrard Street PO Box 48600  
Vancouver BC V7X 1T2

Dear Operational Certificate Holder:

Enclosed is Amended Operational Certificate 103921 issued under the provisions of the *Environmental Management Act*. Your attention is respectfully directed to the terms and conditions outlined in the operational certificate. An annual fee will be determined according to the Permit Fees Regulation.

This operational certificate does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority rests with the operational certificate holder. It is also the responsibility of the operational certificate holder to ensure that all activities conducted under this authorization are carried out with regard to the rights of third parties, and to comply with other applicable legislation that may be in force.

Pursuant to Section 16 of the *Environmental Management Act*, the director has amended authorization 103921.

This decision may be appealed to the Environmental Appeal Board in accordance with Part 8 of the *Environmental Management Act*. An appeal must be delivered within 30 days from the date that notice of this decision is given. For further information, please contact the Environmental Appeal Board at (250) 387-3464.

Administration of this operational certificate will be carried out by staff from the Authorizations – Communities, IPM and AgriFood section. Plans, data and reports pertinent to the operational certificate are to be submitted to the director, Environmental Protection, at Ministry of Environment and Climate Change Strategy, Regional Operations, Authorizations – Communities, IPM and AgriFood section.

Ministry staff must be able to use and rely upon the information contained in a report prepared by a Qualified Professional and required by and submitted to the director. Reports that contain statements preventing the Ministry's use of and reliance on the information contained in a report may not be accepted by the Ministry. In addition, where

an agreement between a Qualified Professional and the operational certificate holder limits the information provided to the Ministry, the operational certificate holder should advise the director accordingly. All documents submitted to the Director by a Qualified Professional must be signed by the author(s). In addition, a completed Declaration of Competency and Conflict of Interest Disclosure Statement must accompany documents submitted to the director by the Qualified Professional(s).

When a spill or the risk of a spill occurs, the responsible person (spiller) must report it immediately by calling 1-800-663-3456 in accordance with the Spill Reporting Regulation. More information is available at:

<https://www2.gov.bc.ca/gov/content?id=1EAB9109A9E9407EA646050A9D431C41>

Please be reminded that the director may, for the protection of the environment in accordance with Section 16 of the *Environmental Management Act*, require the operational certificate holder to do one or more of the following at any time:

- repair, alter, remove, improve or add to existing works, or construct new works, and submit plans and specifications for works specified in this authorization.
- conduct monitoring, and may specify procedures for monitoring and analysis, and procedures or requirements respecting the handling, treatment, transportation, discharge or storage of waste.
- provide security in the amount and form, and subject to the conditions, specified by the director.
- conduct studies and report information in accordance with the specifications of the director.
- recycle certain wastes and recover certain reusable resources, including energy potential from wastes, in accordance with the specifications of the director.
- submit copies of reports and notifications to specified Indigenous Groups, within specified timelines, in accordance with the specifications of the director.

Yours truly,

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Authorizations



MINISTRY OF ENVIRONMENT  
AND CLIMATE CHANGE  
STRATEGY

**OPERATIONAL CERTIFICATE**

103921

*Under the Provisions of the Environmental Management Act*

**Fraser Valley Biogas Ltd.**

**2016 Interprovincial Highway  
Abbotsford BC V3G 2H8**

Is Authorized to discharge contaminants to the air and land from an anaerobic digester facility located at 2016 Interprovincial Highway, Abbotsford, British Columbia, subject to the requirements listed below.

Contravention of any of these requirements is a violation of the *Environmental Management Act* and may lead to prosecution.

This Authorization supersedes and replaces all previous versions of Operational Certificate 103921 issued under Section 28 of the *Environmental Management Act*.

**1. AUTHORIZED DISCHARGES**

**1.1 Authorized Source – AIR EMISSIONS FROM NATURAL GAS BOILER**

This section applies to the discharge of air from a low NOx Natural Gas Boiler with a rated output of 2.078 MMBTU/hr used to supply heat to the anaerobic digesters and the pasteurization system. The site reference number for this discharge is E278311.

- 1.1.1 The maximum rate of discharge is 2.078 Million British Thermal Units per hour (MM BTU/hr).
- 1.1.2 The authorized discharge period is 24 hrs per day, 365 days per year.

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an officer. The records must be retained in an electronic or hard copy form for a minimum of five (5) years.

## 2.7 **Standard Conditions**

For the purpose of any required reporting or submission of data to the Ministry, the operational certificate holder must convert all measurements of gaseous volumes to standard conditions of 293.15 K and 101.325 kPa with zero percent moisture.

## 2.8 **Works Completion and Operating**

The operational certificate holder must not discharge under this Authorization unless the Authorized Works are complete, fully operational and in operation at the time of discharge.

## 2.9 **Maintenance of Works**

The operational certificate holder must regularly inspect the Authorized Works and facility infrastructure and maintain them in good working order.

If components of the Authorized Works have a manufacturer's recommended maintenance schedule, then those components must, at a minimum, be maintained in accordance with that schedule.

The operational certificate holder must maintain a record of inspections and maintenance and any shut down periods of the Authorized Works.

### 2.9.1 Emergency Procedures:

In the event of an emergency or other condition which prevents normal operation of the Authorized Works or leads to an unauthorized discharge, the operational certificate holder must take remedial action immediately to restore the normal operation of the Authorized Works and to prevent any unauthorized discharges. The operational certificate holder must immediately report the emergency or other condition and the remedial action that has and will be taken to the EnvironmentalCompliance@gov.bc.ca email address or as otherwise instructed by the director.

## 2.10 **Bypasses**

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for Director, *Environmental Management Act*  
Authorizations

The operational certificate holder must not allow any discharge authorized by this Authorization to bypass the Authorized Works, except with the prior written approval of the director.

2.11 **Plans - Works**

The operational certificate holder must ensure the plans and specifications of the works described in this Authorization are certified by a Qualified Professional and are submitted to the director not less than 60 days prior to construction.

The operational certificate holder must cause a Qualified Professional to certify that the works have been constructed in accordance with such plans and specifications before discharge commences under this Authorization.

2.12 **Process Modifications**

The operational certificate holder must notify the director prior to implementing changes to any process that may adversely affect the quality and/or quantity of the discharge. Despite notification under this section, permitted levels must not be exceeded.

2.13 **Standby Power**

The operational certificate holder must provide auxiliary power facilities to ensure continuous operation of critical safety and environmental controls equipment of the Authorized Works during power outages.

2.14 **Access Security**

The operational certificate holder must provide adequate security for the Facility and restrict access to authorized personnel. The operational certificate holder must ensure that all valves, pumps, doors and controls, that would be accessible if security were breached, are locked unless under active use and supervision by facility staff.

2.15 **Public Health, Safety and Nuisance**

The operational certificate holder must operate the Facility in a manner such that it will not create a public nuisance or become a significant threat to public health or the environment. Consideration must be given to air emissions, unauthorized access, roads, traffic, noise, dust, litter, vectors and wildlife attraction.

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for Director, *Environmental Management Act*  
Authorizations

### 3. OPERATIONAL REQUIREMENTS

#### 3.1 Feedstock Quantity Limits and Ratios

The operational certificate holder must not receive or process more than 100,000 wet tonnes of organic materials per calendar year.

The operational certificate holder is authorized to process a ratio of no less than 51% Agricultural and Agricultural Vegetative Waste and no more than 49% Non-Agricultural Waste, and that the proportion of these two wastes are in accordance with any authorization issued by the Agricultural Land Commission for non-farm use in the Agricultural Land Reserve.

#### 3.2 Types of Waste Feedstock

The operational certificate holder is authorized to process only the following organic materials/feedstocks in the anaerobic digester:

<b>Feedstock</b>	<b>Source/Origin</b>
Animal bedding	Trace amounts in the manure
Animal feed	Off-specification or spoiled grain and feeds no longer suitable for feeding animals
Brewery, distillery and winery waste	Local breweries, distilleries and wineries
Domestic animal waste	Local commercial businesses
Fish waste	Local fisheries and fish processors
Food waste, fats, oil and grease	Local food processing and rendering
Flocs and scum from dissolved air floatation systems	Local processing and rendering of fats, oil and grease
Produce (fruits, vegetables, etc.)	Local commercial processors, distributors and stores
Glycerin	Local biodiesel manufacturers, using second generation feedstock of restaurant grease and animal tallow from rendering
Hatchery waste	Local hatcheries
Leachate from composting operations	Local composting facilities
Manure	Local dairy, hog and chicken farmers and other animal manures (e.g., horse)
Milk processing waste	Local dairy operations
Plant material derived from processing plants	Local processing plants

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for Director, *Environmental Management Act*  
Authorizations

Whey	Local dairy operations
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3.3 **Waste Feedstock Sources**

Waste feedstock sources must be in accordance with any applicable approved municipal liquid and/or solid waste management plans.

3.4 **Quality of Non-Agricultural Waste Feedstock Sources**

The operational certificate holder must ensure that prior to acceptance of any new source of waste feedstock a representative sample has confirmed the proposed waste stream will not exceed the criteria in the following table:

Maximum concentration of Heavy Metals in waste feedstock.

Parameter	Maximum concentration (µg/g dry weight)
Arsenic	13
Cadmium	3
Chromium	100
Cobalt	34
Copper	400
Lead	150
Mercury	2
Molybdenum	5
Nickel	62
Selenium	2
Zinc	500

3.5 **Unacceptable Waste Feedstock**

In the event that a waste does not meet the quality criteria specified in sections 3.2 and 3.4, the operational certificate holder must:

- a) Notify the Director in writing within three (3) business days of the receipt of any unacceptable loads;
- b) Ensure that all unacceptable waste is removed from the site as soon as practicable but not more than 10 days from the time of receipt;
- c) Maintain a logbook with the following information:
  - (i) the time and date the reject waste arrived at the site;
  - (ii) the reason for refusing the waste;
  - (iii) the quantity and type of waste refused;

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 for Director, *Environmental Management Act*  
 Authorizations

- (iv) the location and name of the waste source;
- (v) the shipping destination of the rejected waste;
- (vi) the time and date the reject waste was removed from the site.

### 3.6 **Pre-Treatment of Non-Agricultural Waste**

The operational certificate holder must ensure that Non-Agricultural Waste feedstock is pasteurized by heating to a minimum temperature of 70 degrees Celsius for a minimum of one (1) hour, prior to being fed into the anaerobic digester.

## 4. **AIR DISCHARGE REQUIREMENTS**

### 4.1 **Thermal Oxidizer Operation and Environmental Factors**

The thermal oxidizer must be operational prior to commencing the thermal oxidizer and PSA gas upgrading system. The thermal oxidizer must have monitoring capabilities that includes, temperature, biogas flow measurement, duration of upsets/downtime and a 24 hour time tag start and stop burn event clock.

The operation of the thermal oxidizer system for scheduled repairs and maintenance is authorized under the following conditions:

- a) the Air Quality Health Index (AQHI) for the Central Fraser Valley is less than or equal to 4;
- b) it is not a weekend or a statutory holiday;
- c) the wind direction, and other atmospheric conditions, are such that the discharge is unlikely to cause an impact on sensitive receptors.

### 4.2 **Notification - Thermal Oxidizer in Upset Conditions**

In the event that the thermal oxidizer is operated under upset conditions for more than 900 hours in a calendar year, under any circumstances, the operational certificate holder must notify the director, Environmental Protection, immediately, with the same information as required under a spill under the Spill Reporting Regulation. The operation of the thermal oxidizer during the initial two months start-up period will not be subject to this requirement.

## 5. **LAND APPLICATION REQUIREMENTS**

### 5.1 **Digestate Application to Land**

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for Director, *Environmental Management Act*  
Authorizations

The operational certificate holder must ensure that the Digestate is applied in accordance with the applicable requirements of the Code of Practice for Agricultural Environmental Management and the Nutrient Management Plans prepared by a Qualified Professional.

### 5.2 **Containment During Transportation**

The operational certificate holder must ensure that no Digestate escapes during transportation or piping.

### 5.3 **Notifying Land/Farm Owners and Operators**

The operational certificate holder must notify the operators of the agricultural lands/farms and their agents that they must comply with the applicable requirements of the Code of Practice for Agricultural Environmental Management.

## 6. **MANAGEMENT PLANS**

### 6.1 **Design and Operating Plan (DOP)**

The operational certificate holder must submit, to the satisfaction of the director, a Design and Operating Plan for the Facility. The DOP must be prepared by a Qualified Professional and must include, but is not limited to, the following:

- a) acceptable feedstock and product details
- b) tanks and structures in which liquid and solid feedstock is stored
- c) the pre-treatment of feedstock in preparation for the digestion process
- d) tanks and works for storage and handling of liquid Digestate
- e) thermal oxidizer and PSA system
- f) odour control equipment (including biofilter system) and management practices employed to prevent neighbour and community impacts related to odours, fugitive dusts and other emissions generated by the Facility
- g) the process of anaerobic digestion by which microbiological decomposition of organic compounds into biogas and other products
- h) procedures to manage unauthorized feedstock, digestate with exceeding limits of contaminants of concern, wastes generated from the operations
- i) procedures to prevent the unauthorized escape of substances deleterious to human health or the environment
- j) Environmental Monitoring Plan which addresses discharges to the air and land.

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for Director, *Environmental Management Act*  
Authorizations

The Environmental Monitoring Plan shall be reviewed annually, by a qualified professional, and updated as necessary. Any revision to the plan must be submitted to the director. All monitoring must be conducted in accordance with the Environmental Monitoring Plan.

The operational certificate holder must operate the authorized facility and works in accordance with the DOP. The DOP must be kept on site and readily available to facility personnel and Ministry staff.

## 6.2 **Operations Manual**

The operational certificate holder must prepare and maintain an Operations Manual for use by facility personnel, and it must contain, but not limited to:

- a) outline the responsibilities of personnel
- b) personnel training protocols
- c) feedstock receiving and suitability screening procedures
- d) feedstock unloading, handling and storage procedures
- e) output material unloading, handling and storage procedures
- f) process monitoring procedures
- g) sampling and testing procedures
- h) waste disposal procedures
- i) pollution control works procedures
- j) site inspection, spill, fire, upset and leakage recording procedures.

The Operations Manual must be kept on site and readily available to facility personnel and Ministry staff.

## 6.3 **Effluent and Stormwater Management Plan**

The discharge of Effluent, from the operation of the Facility, to ground, surface water or groundwater from the Facility is prohibited. The operational certificate holder must divert uncontaminated stormwater run-off away from the organic material. The operational certificate holder must construct adequate Effluent diversion works to capture stormwater run-off that may have or have become contaminated.

The operational certificate holder must cause a Qualified Professional to prepare within 90 days of receiving this Authorization and maintain an up-to-date Effluent and Stormwater Management Plan that describes the works and procedures that have or will be taken by the operational certificate holder to prevent the generation of Effluent,

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for Director, *Environmental Management Act*  
Authorizations

to capture, manage and to dispose of the Effluent generated. The operational certificate holder must implement the most recent version of the Plan.

#### 6.4 **Odour Control and Odour Response Plan**

The operational certificate holder must suppress odour produced by the operation that have migrated beyond the property on which the Facility is located to the satisfaction of the director.

Should objectionable odours, attributable to the operation of the Facility, occur beyond the property on which the Facility is located, the operational certificate holder must undertake measures or additional works to reduce odour to acceptable levels.

The operational certificate holder must develop an Odour Response Plan to the satisfaction of the Director within 90 days of receiving this Authorization. The plan must detail measures to be taken, including how emissions will be reduced to prevent unacceptable impacts on local air quality. The plan must be reviewed annually and updated if necessary. Any changes to the plans must be submitted to the director for review.

The operational certificate holder must maintain records with a description of any complaints received and how the complaint was addressed.

#### 6.5 **Emergency Response Plan**

The operational certificate holder must prepare within 90 days of receiving this Authorization, maintain and update annually an Emergency Response Plan that describes the procedures that have or will be taken by the operational certificate holder to prevent or mitigate any deposit to the receiving environment by the Facility of any deleterious substance to the environment.

The operational certificate holder must implement the Emergency Response Plan immediately if there is a deposit, or any risk of a deposit, of a deleterious substance. An up-to-date Emergency Response Plan and a report on any emergency responses taken by the operational certificate holder in the previous year must be kept available on site for inspection by Ministry staff.

The operational certificate holder must also prepare, update annually and keep available for inspection by Ministry staff, a remedial plan describing procedures to be taken by the operational certificate holder to eliminate all unauthorized deposits of deleterious substances into the environment.

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for Director, *Environmental Management Act*  
Authorizations



## 6.6 Closure

Before closure of the Facility, the operational certificate holder must distribute all Digestate in accordance with the Code of Practice for Agricultural Environmental Management, and all unprocessed organic matter must be removed from the Facility and disposed of in accordance with the *Environmental Management Act*.

The operational certificate holder must notify and submit to the director a final Closure Plan for the Facility 90 days prior to deactivation of the Facility. The final Closure Plan and associated engineered closure works must be compatible with the planned end-use of the Facility.

The operational certificate holder must complete the closure of the Facility within the period specified in, and in accordance with the Closure Plan and any additional requirement requested by the director

### 6.6.1 Closure Plan

The operational certificate holder must submit to the director an updated Closure Plan in accordance with any request of the director, within 60 days before the anticipated closure date. The updated Closure Plan must, as a minimum, include the following:

- a) proposed end-use of the property after closure
- b) description of decontamination procedures to be followed
- c) schedule of how and when the Facility will be closed
- d) procedures for notifying the public about the closure and about alternative waste disposal facilities
- e) environmental study to include:
  - (i) state of the environment, post determination by a Qualified Professional
  - (ii) post-closure plan, including monitoring and remediation
- f) an estimated cost to carry out closure and post-closure activities
- g) schedule of closure report for submission to the director
- h) Plan certification, including statement certifying report's accuracy, appropriateness and completeness; with date, author's signature, name, title and credentials on the certification.

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{{sign}AmendmentText}    {{sign}SignatureBlockFirstLine}  
for Director, *Environmental Management Act*  
Authorizations

The director may request additional information that is necessary for the protection of human health and the environment and may specify concerns that the Plan must address.

#### 6.6.2 **Closure Report**

The operational certificate holder must, within 90 days of final closure of the Facility, submit to the director for approval a closure report, prepared and certified by an independent Qualified Profession.

The closure report must include, as a minimum, the following:

- a) A description and estimate of the quantity of any waste remaining at the Facility after the closure and explanation if not all wastes were removed. Wastes includes feedstock and compost for the purpose of closure.
- b) A list of any contaminated works remaining at the Facility after the closure.
- c) A description of the condition of the soil, sediments, groundwater and surface water at the Facility after the closure
- d) A description of the condition of the works left at the Facility after the closure. after disposal of the waste residues or decontamination of the works and soils.
- e) Environmental Impact Study report
- f) A description of planned post-closure activities, including the following:
  - (i) planned monitoring and maintenance activities
  - (ii) the frequency of monitoring and maintenance activities
  - (iii) the persons who will conduct post-closure activities
  - (iv) the date by which all post-closure activities will be complete
- g) Certification by the independent Qualified Professional who prepared the report that the following requirements are met:
  - (i) closure was performed in accordance with the closure plan
  - (ii) closure has been completed and is adequate to protect human health and the environment
  - (iii) post-closure activities, if any, are adequate to protect human health and the environment.

#### 6.6.3 **Post-Closure Activities**

If post-closure activity is required, the operational certificate holder must:

{{sign}DateLabel}    {{sign}WILastUpdated}    {{sign}image:SigningAuthoritySignatureId}  
{{sign}AmendmentText}    {{sign}SignatureBlockFirstLine}  
for Director, *Environmental Management Act*  
Authorizations

- a) If required by the director, submit to the director reports on the progress of the activity, with the information and at intervals of time, specified by the director, and
- b) Complete the activity and either
  - (i) obtain the director's approval that the post-closure activity is complete or
  - (ii) submit to the director certification by an independent Qualified Professional that the post-closure activity has been completed and is adequate to protect human health and the environment.

#### 6.7 **Implementation of Plans**

The operational certificate holder must operate the Facility in accordance with the Design and Operating Plan and any of the plans specified in the operational certificate, and any requirement which the director may attach.

The operational certificate holder must not implement any changes which may change quality or quantity of discharges without prior written approval of the director.

#### 6.8 **Amendments or Changes to Plans**

All plans specified in the operational certificate must be revised at least every 5 years, or when major Facility changes are implemented in a way that may change the quality or quantity of discharges. The revised plan must be prepared by a Qualified Professional and submitted to the director.

The operational certificate holder must keep all plans specified in the operational certificate up to date.

#### 6.9 **Submission of Amended or Changed Plans**

The operational certificate holder must submit any updates of any of the plans specified in the operational certificate by email to the Ministry's ENV Authorizations Submissions Mailbox at [EnvAuthorizationsReporting@gov.bc.ca](mailto:EnvAuthorizationsReporting@gov.bc.ca) or as otherwise instructed by the director.

For guidelines on how to properly name the files and email subject lines or for more information visit the Ministry website:

<https://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/comply>

{{sign]DateLabel}    {{sign]WILastUpdated}    {{sign]image:SigningAuthoritySignatureId}  
{{sign]AmendmentText}    {{sign]SignatureBlockFirstLine}  
for Director, *Environmental Management Act*  
Authorizations

## 7. SAMPLING AND MONITORING REQUIREMENTS

### 7.1 Air Emissions Monitoring

#### 7.1.1 Thermal Oxidizer and PSA Unit Monitoring

The operational certificate holder must monitor the operation of the thermal oxidizer and PSA unit under normal and upset operating conditions for flow rate of gaseous emissions (normal conditions) and biogas (upset conditions) and the duration of the air emission discharges during both normal and upset conditions.

#### 7.1.2 Thermal Oxidizer Stack Sampling Requirements

The operational certificate holder must implement the following stack sampling program once a year, during normal operating conditions. Stack testing must measure:

- a) Volumetric flow rate (m<sup>3</sup>/min)
- b) Discharge rates\* of:
  - Methane (CH<sub>4</sub>)
  - Carbon monoxide (CO)
  - Nitrogen or nitrogen oxides (NO<sub>x</sub>)
  - Oxygen
  - Hydrogen sulphide (H<sub>2</sub>S) or sulphur dioxide (SO<sub>2</sub>)
  - Total particulate matter (TPM)
  - Volatile organic compounds (VOC)
  - Total sulphur
  - Total non-methane organic compounds
- \* In mg/m<sup>3</sup> and g/s, corrected to Standard temperature and pressure
- c) Exit velocity and temperature

Stack testing must be performed at a throughput that is at or above average for that of the previous 3 months and is as close as practical to the 90<sup>th</sup> percentile for the previous 90 days. Sampling must be completed by a Qualified Professional.

#### 7.1.3 Non-compliance source testing

If any a sampling event is found to exceed the limits set in section 1, the permittee must immediately notify the director and re-test the non-compliant emission source within 30 calendar days of receipt of the failed test result. The director may provide additional direction on the timing of the follow-up tests.

{{[sign]DateLabel}}    {{[sign]WILastUpdated}}    {{[sign]image:SigningAuthoritySignatureId}}  
{{[sign]AmendmentText}}    {{[sign]SignatureBlockFirstLine}}  
for Director, *Environmental Management Act*  
Authorizations

If the results of the re-test exceed any of the limits in section 1, then the discharge from the non-compliant emission source must cease until the problem has been corrected, unless authorized in writing, by the director.

Upon completion of the corrective action, the permittee may resume operation of the authorized works. However, a third confirmation test must be conducted within 30 calendar days to ensure the works meet the allowable limits. This additional test and verification do not grant an allowance to exceed the authorization limits.

#### 7.1.4 Stack Sampling Facilities

The operational certificate holder must provide sampling ports with nearby electrical outlets and, where required, WorkSafeBC approved access ladders and adequately sized platforms for sampling activities, for the discharges covered in section 1.

### 7.2 Feedstock Monitoring

#### 7.2.1 Feedstock Pasteurizer

The operational certificate holder must monitor the feedstock pasteurizing process daily to ensure that the minimum feedstock temperature is continuously maintained at 70 degrees Celsius for a minimum of one hour. The operational certificate holder must maintain a daily log of temperature and batch period for each pasteurizing unit.

#### 7.2.2 Feedstock quality

##### New feedstock:

Prior to the acceptance of new material or material from a new Non-Agricultural Waste source, the operational certificate holder must collect a representative sample of the material and analyse it to confirm that the material does not exceed the levels listed in section 3.4.

##### Existing feedstock:

Additionally, composite sample of Non-Agricultural Waste feedstock to the pasteurizer must be collected annually, under normal operating conditions and analysed for:

- Arsenic

{{[sign]DateLabel}}    {{[sign]WILastUpdated}}    {{[sign]image:SigningAuthoritySignatureId}}  
{{[sign]AmendmentText}}    {{[sign]SignatureBlockFirstLine}}  
for Director, *Environmental Management Act*  
Authorizations

- Cadmium
- Chromium
- Cobalt
- Copper
- Lead
- Mercury
- Molybdenum
- Nickel
- Selenium
- Zinc

Non-compliance source testing:

If any annual sample of Non-Agricultural Waste feedstock to the pasteurizer does not meet the levels listed in section 3.4, each individual non-agricultural waste source must be sampled and analysed for metals to determine the source of the high level contaminant(s).

7.3 **Digestate Monitoring**

The operational certificate holder must collect sample (s) on a representative sample of the digestate quarterly, and obtain analysis of the sample(s) for the following parameters:

- Arsenic
- Cadmium
- Chromium
- Cobalt
- Copper
- Lead
- Mercury
- Molybdenum
- Nickel
- Selenium
- Zinc
- Chloride
- Total sulphur
- Fecal coliform
- pH (minimum/maximum range)
- parameters required to comply with the Nutrient Management Plans

{{[sign]DateLabel}}    {{[sign]WILastUpdated}}    {{[sign]image:SigningAuthoritySignatureId}}  
{{[sign]AmendmentText}}    {{[sign]SignatureBlockFirstLine}}  
for Director, *Environmental Management Act*  
Authorizations

If any analytical data show exceedances of the levels listed in section 1.5, the operational certificate holder must not distribute the digestate for land application and must notify the director for further instructions within 15 days of receiving the analytical data.

#### 7.4 **Nutrient Management Monitoring and Records**

The operational certificate holder must compile records of:

- a) locations where Digestate was applied
- b) the date and Digestate quantity of each application for each location
- c) daily and total volume of Digestate shipped off-site.

#### 7.5 **Sampling Location and Techniques**

The operational certificate holder must use sampling locations, techniques, and equipment that are acceptable to the director.

#### 7.6 **Sampling Facilities**

Prior to sampling, the operational certificate holder must install and maintain, suitable to the director, sampling facilities. The operational certificate holder must collect samples at each site according to the schedule specified in sections 7.1, 7.2 and 7.3. The operational certificate holder must take due care in sampling, storing and transporting the samples to control temperature and avoid contamination, breakage, and any other factor or influence that may compromise the integrity of the samples.

#### 7.7 **Sampling Procedures**

The operational certificate holder must carry out sampling in accordance with the procedures described in the "British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples (2023)", or most recent edition, or by alternative procedures as authorized by the director.

A copy of the above manual is available on the Ministry web page at <https://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/monitoring/laboratory-standards-quality-assurance/bc-field-sampling-manual>.

#### 7.8 **Analytical Procedures**

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for Director, *Environmental Management Act*  
Authorizations

The operational certificate holder must carry out analyses in accordance with procedures described in the "British Columbia Environmental Laboratory Manual (2023)", or the most recent edition or by alternative procedures as authorized by the director.

A copy of the above manual is available on the ministry web page at <https://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/monitoring/laboratory-standards-quality-assurance/bc-environmental-laboratory-manual>.

## 7.9 **Quality Assurance**

- a) The operational certificate holder must obtain from the analytical laboratory(ies) their precision, accuracy and blank data for each sample set submitted by the operational certificate holder and an evaluation of the data acceptability, based on criteria set by such laboratory.
- b) The operational certificate holder collect, prepare and submit for analysis by the analytical laboratory(ies) a duplicate sample for a minimum of 10% of samples taken during each monitoring period.
- c) The operational certificate holder must submit samples to analytical laboratory(ies) that meet the definition of a qualified laboratory under the Environmental Data Quality Assurance Regulation.

## 8. **REPORTING REQUIREMENTS**

### 8.1 **Annual Report**

The operational certificate holder must collect and maintain all data of analysis and flow measurements and the analytical quality assurance/ quality control data required under this Authorization.

The operational certificate holder must, on or before each January 31 that occurs during the term of this Authorization, submit such data and information for the preceding calendar year to the director, in a form that is tabulated, graphically represented and interpreted to the satisfaction of the director.

The operational certificate holder must submit all data required to be submitted under this section by email to the ENV Authorizations Submission Mailbox (EASM) at [EnvAuthorizationsReporting@gov.bc.ca](mailto:EnvAuthorizationsReporting@gov.bc.ca) or as otherwise instructed by the director. For guidelines on how to properly name the files and email subject lines or for more information visit the Ministry website:

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for Director, *Environmental Management Act*  
Authorizations



[https://www2.gov.bc.ca/assets/gov/environment/waste-management/waste-discharge-authorization/datamart/rersm\\_naming\\_convention.pdf](https://www2.gov.bc.ca/assets/gov/environment/waste-management/waste-discharge-authorization/datamart/rersm_naming_convention.pdf).

### 8.1.1 **Annual Report Details**

The Annual Report, with respect to the preceding calendar year, must include, but is not limited to:

- a) The quantity and type of organic materials/feedstock received
- b) Tabulated quantity (per tonnage, type and month) of:
  - (i) Feedstock received
  - (ii) Liquid Digestate produced and shipped off-site
  - (iii) Solid Digestate produced and distributed off-site, including shipping location of the waste and the name of each waste receiver
  - (iv) Residual waste generated and disposed off-site
- c) Detailed summary of results of all monitoring programs specified in this operational certificate, the Design and Operating Plan and the additional plans required in this Authorization
- d) Review and interpretation of the monitoring data, prepared by a Qualified Professional, and includes but is not limited to:
  - (i) Analysis with interpretation of any trends in monitoring results or historical data
  - (ii) Comparison with criteria established in this Authorization and applicable standards
  - (iii) An evaluation of the performance of the treatment works and identify any changes
  - (iv) Quality assurance data and analyses with a discussion of any discrepancies
  - (v) Recommendations
- e) Any changes in the monitoring program or facility operation
- f) Nutrient Management Records (as required per section 7.4)
- g) Description of any operational upsets experienced by the anaerobic digester and corrective actions
- h) Non-compliance reporting and exceedances, in accordance with section 9.3.
- i) A summary and analysis of all complaints received, explanation of probably causes and remedial actions planned an/or taken to prevent similar situations in the future
- j) Any improvements made or planned to the Facility or operations.

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for Director, *Environmental Management Act*  
Authorizations

- k) Report certification, including statement certifying report's accuracy, appropriateness and completeness; with date, author's signature, name, title and, where applicable, credentials on the certification.

## 8.2 Veracity of Data

The operational certificate holder must ensure all information submitted as a requirement of this permit is accurate and free from mistakes or misleading statements. The operational certificate holder must include in any submission required under this permit an explanation for any data that:

- a) is required under the permit but is missing from the submission; and
- b) the operational certificate holder considers to be not representative of the actual discharge, conditions or other circumstances the data is intended to measure.

## 9. NON-COMPLIANCE REPORTING

### 9.1 Non-compliance Notification

The operational certificate holder must immediately notify the director by email at [EnvironmentalCompliance@gov.bc.ca](mailto:EnvironmentalCompliance@gov.bc.ca), or as otherwise instructed by the director of any non-compliance with the requirements of this Authorization and must immediately take remedial action to remedy any effects of such non-compliance.

### 9.2 Non-compliance Reporting

The operational certificate holder must, within 30 days of any non-compliance event, submit to the director a written report that includes, but is not necessarily limited to, the following:

- a) all relevant test results obtained by the operational certificate holder related to the non-compliance,
- b) an explanation of the most probable cause(s) of the non-compliance, and
- c) a description of remedial action planned and/or taken by the operational certificate holder to prevent similar non-compliance(s) in the future.

The operational certificate holder must submit all non-compliance reporting required to be submitted under this section by email to the Ministry's Compliance Reporting Submission Mailbox (CRSM) at [EnvironmentalCompliance@gov.bc.ca](mailto:EnvironmentalCompliance@gov.bc.ca) or as otherwise instructed by the director. For guidelines on how to report a non-compliance or for more information visit the Ministry website:

<https://www2.gov.bc.ca/gov/content?id=076C5CA3ABD342A784CC49EC78CBAE12>

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for Director, *Environmental Management Act*  
Authorizations

### 9.3 Non-compliance Reporting and Exceedances

The operational certificate holder must cause each data submission required by this Authorization to include a statement outlining the following:

- a) the number of exceedances of permitted discharges that occurred during the reporting period,
- b) the dates of each such exceedance,
- c) an explanation as to the cause of the exceedances, and
- d) a description of the measures taken by the operational certificate holder to rectify the cause of each such exceedance.

If no exceedances occurred over the reporting period, the required statement may instead indicate that no exceedance of permitted discharges occurred during the reporting period.

### 9.4 Monitoring Following Non-Compliance with Permit Limits

If monitoring results indicate an exceedance of any permit limits stipulated in sections 1 and 3, the operational certificate holder must, immediately upon receipt of the results of the exceedance from the laboratory, do the following:

- a) collect an additional sample from the same location where the non-compliant sample was collected, and submit for analysis for at least the parameter that exceeded the permit limit; and,
- b) collect a sample each day from the same location and submit for analysis for at least the parameter that exceeded the permit limit, until such time as the analytical results from the laboratory indicate that the characteristics of the discharge have returned to within permit limits.

All sample results must be submitted to the director immediately upon receipt from the laboratory conducting the analysis.

The director may require additional monitoring or reporting at any time by specifying such requirements in writing to the operational certificate holder.

## 10. GLOSSARY

### 10.1 “Agricultural and Agricultural Vegetative Waste”

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		for Director, <i>Environmental Management Act</i>
		Authorizations

“Agricultural and Agricultural Vegetative Waste” means material that are produced for the purpose of an agricultural operation but are incidental or secondary to the primary product of agricultural operations and includes manure, used mushroom medium, residues from primary crop production, organic waste matter derived from the drying or cleaning of field crops or nut crops, non-food vegetative matter resulting from land clearing on farms, animal bedding derived from straw, paper, hog fuel, chips, bark, shavings or sawdust.

10.2 **“Authorized Works”**

“Authorized Works” means Authorized Works as stated in section 1.

10.3 **“Digestate”**

“Digestate” means the discharge from the anaerobic digester after the digestion or treatment process is complete.

10.4 **“Effluent”**

“Effluent” means liquid waste (treated or untreated) discharged from the Facility that causes or is capable of causing injury or damage to human health and/or the environment. Effluent includes:

- a) leachate originating from organic matter being received, processed or stored;
- b) precipitation, stormwater, equipment wash water or other water which has come into contact with, or mixed with, organic matter or wastes received, processed or stored.

10.5 **"Facility"**

“Facility” means the Fraser Valley Biogas Ltd.’s anaerobic digester facility located at 2016 Interprovincial Highway, Abbotsford, British Columbia. Lot 79, Section 13, Twp 19, New Westminster District, Plan 4211.

10.6 **“Non-Agricultural Waste”**

“Non-Agricultural Waste” means off farm material and waste from sources other than agriculture such as, but not limited to, dissolved air floatation floc and scum from dissolved air floatation systems in the processing and fats oils and greases, from grease trap fats, oils and grease from food processing industry, glycerin from biodiesel manufacturers.

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for Director, *Environmental Management Act*  
Authorizations

10.7 **“Nutrient Management Plan”**

“Nutrient Management Plan” means the nutrient management plan as defined in the Code of Practice for Agricultural Environmental Management.

10.8 **"Province"**

“Province” means His Majesty the King in right of British Columbia.

10.9 **"Qualified Professional"**

“Qualified Professional” means an applied scientist or technologist specializing in an applied science or technology applicable to the duty or function, including, if applicable and without limiting this, agrology, biology, chemistry, engineering, geology or hydrogeology and who:

- a) is registered with the appropriate professional organization, is acting under that organization's code of ethics and is subject to disciplinary action by that organization, and
- b) through suitable education, experience, accreditation and/or knowledge, may be reasonably relied on to provide advice within their area of expertise.

All documents submitted to the Director by a Qualified Professional must be signed by the author(s). In addition, a completed Declaration of Competency and Conflict of Interest Disclosure Statement must accompany documents submitted to the director by the Qualified Professional(s).

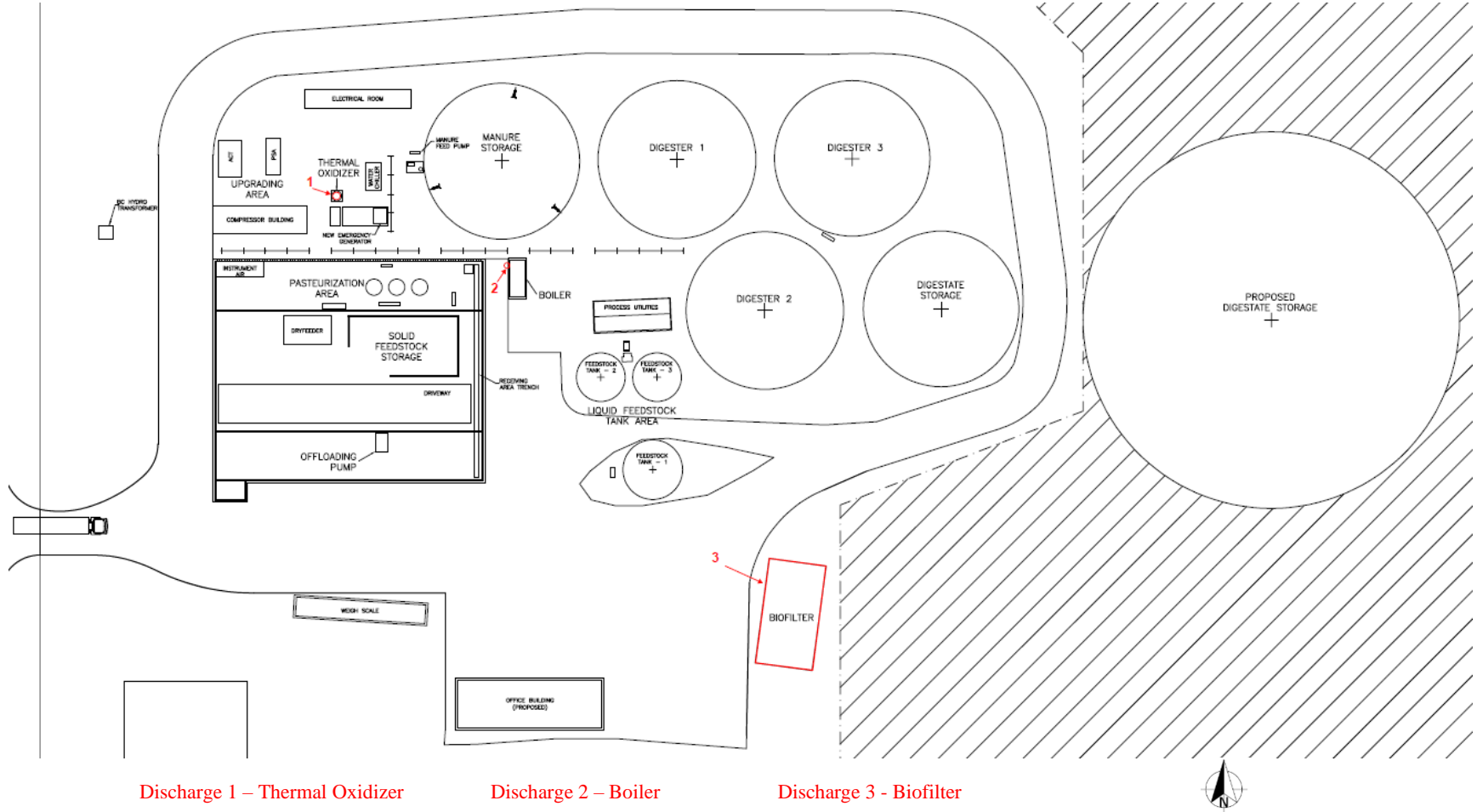
10.10 **"Regulatory Document"**

“Regulatory Document” means any document that the operational certificate holder is required to provide to the director or the Province pursuant to:

- a) this Authorization;
- b) any regulation made under the *Environmental Management Act* that regulates the Facility described in this Authorization or the discharge of waste from that facility;  
or
- c) any order issued under the *Environmental Management Act* directed against the operational certificate holder that is related to the facility described in this Authorization or the discharge of waste from that facility.

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for Director, *Environmental Management Act*  
Authorizations

**SITE PLAN A – WORKS AND DISCHARGE POINTS**



Discharge 1 – Thermal Oxidizer

Discharge 2 – Boiler

Discharge 3 - Biofilter

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for Director, *Environmental Management Act*  
Authorizations