

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 4870-BZ5NFD
Issue Date: March 31, 2021

Flavor Fresh Farms Ltd.
635 Mersea Road 7
Leamington, Ontario
N8H 3V8

Site Location: 635 Mersea Road 7
Municipality of Leamington
County of Essex, Ontario

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

the establishment of sewage treatment and subsurface disposal works with a total Rated Capacity of 40,000 litres per day, for the treatment and disposal of domestic sewage from an existing and a new bunkhouses for accommodating a total of 144 on-site workers, and office/greenhouse/warehouse facilities with 75 other employees, located at 635 Mersea Road 7, in the Municipality of Leamington, consisting of the following:

Existing Works

- one (1) 4,050 litre Grease Interceptor, receiving sewage from Bunkhouse #1 kitchens, and discharging an existing septic tank; and
- one (1) 29,500 litre Septic Tank, receiving sewage from Bunkhouse #1 washrooms and the effluent from the grease interceptor, discharging into the Pump Tank #1.

Proposed Works

- one (1) 6,400 litres Grease Interceptor, receiving sewage from the kitchens located within Bunkhouse #2, discharging into a 18,200 litre Septic/Sludge Tank;
- two (2) Septic/Sludge Tanks #1 and #2, each having a volume of 18,200 litres, operating in series, receiving sewage from washrooms of new bunkhouse and the effluent from the grease interceptor, discharging the primary effluent into a Pump Tank #2;

- one (1) 9,100 litre Pump Tank #1, equipped with duplex effluent pumps, discharging into a 31,800 litre Sludge Tank;
- one (1) 9,100 litre Pump Tank #2, equipped with duplex effluent pumps, discharging into the 31,800 litre Sludge Tank;
- one (1) 31,800 litre Sludge Tank, receiving sewage from office/greenhouse/warehouse washrooms and the effluent from the Pump Tanks #1 and #2, discharging into an aeration tank;
- one (1) 31,800 litre Aeration Tank, equipped with aeration system including two micro-bubble aerators, discharging into a 31,800 litre clarifier tank;
- one (1) 31,800 litre Clarifier Tank, equipped with a sludge return pump to return sludge to the inlet of the Sludge Tank, and equipped with two effluent filters on the outlet, discharging via gravity into a 40,000 litre biofilter dosing tank;
- one (1) 40,000 litre Biofilter Dosing Tank, equipped with duplex effluent pumps, discharging into a Waterloo Biofilter Treatment System;
- one (1) Waterloo Biofilter Treatment System consisting of three (3) 45,000 litre Biofilter Treatment Tanks (Biofilter Tanks No.1, No. 2 and No.3), each comprising spray units and three (3) mesh baskets filled with Biofilter media, with the tanks hydraulically connected by under drains, with one basket in Biofilter Tank No.1 and three baskets in Biofilter Tanks No.2 and No. 3 receiving effluent from the Biofilter Dosing Tank, and two baskets in Biofilter Tank No.1 receiving effluent from Biofilter Tank No.1 as a Closed Loop Biofilter. Biofilter Tank No.1 is equipped with simplex pump to dosing a portion of treated effluent to the Closed Loop Biofilter baskets, another simplex pump for recirculating to the inlet of Sludge Tank, and duplex pumps discharging treated effluent into a sand filter;
- one Sand Filter consisting of a 350 millimetre diameter by 1651 millimetre high tank equipped with NextSand filtration media, 100 micron bag filter on feed line, and clack valve to control flow rates, with backwash discharging to the Sludge Tank and effluent discharging to ultraviolet disinfection units;
- two (2) Hallett 30 1.5" UV disinfection units to provide 3 log inactivation of fecal coliforms, discharging into a discharge pipe or a Diversion/Disposal tank;
- one (1) discharge pipe discharging Final Effluent to a municipal drain known as Cowan D&W Drain;
- one (1) 50,000 litre Diversion/Disposal tank, to receive treated effluent from the UV disinfection units if discharge to ditch is temporarily not possible;
- one (1) chemical dosing system with provision for dosing alkalinity, phosphorus removal agent, and bacteria to the existing Septic Tank, Septic/Sludge Tank #1, Clarifier Tank, and Biofilter Dosing Tank;

and

- all other controls, electrical equipment, instrumentation, piping, valves, control building and appurtenances essential for the proper operation of the aforementioned Works.

All in accordance with the submitted supporting documents in Schedule A.

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

1. "Approval" means this environmental compliance approval and any schedules attached to it, and the application;
2. "BOD₅" (also known as TBOD₅) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demand;
3. "CBOD₅" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;
4. "Director" means a person appointed by the Minister pursuant to Section 5 of the EPA for the purposes of Part II.I of the EPA;
5. "District Manager" means the District Manager of the Sarnia/Windsor District Office;
6. "*E. Coli*" refers to the thermally tolerant forms of *Escherichia* that can survive at 44.5 degrees Celsius;
7. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
8. "Existing Works" means those portions of the Works included in the Approval that have been constructed previously;
9. "Final Effluent" means sewage discharge via the sewage treatment system outfall after undergoing the full train of unit processes as listed in the Approval;
10. "Geometric Mean Density" is the nth root of the product of multiplication of the results of n number of samples over the period specified;
11. "Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the *Professional Engineers Act*, R.S.O. 1990, c. P.28, as amended;
12. "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;
13. "Monthly Average Concentration" means the arithmetic mean of all Daily Concentrations of a contaminant in the effluent sampled or measured, or both, during a calendar month

14. "Owner" means any person that is responsible for the establishment of the Works being approved by this Approval, and includes Owner's Legal Name and its successors and assignees;
15. "OWRA" means the *Ontario Water Resources Act* , R.S.O. 1990, c. O.40, as amended;
16. "Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;
17. "Rated Capacity" means design daily sanitary sewage flow for which the Works are approved to handle; and
18. "Works" means the approved sewage works, and includes Proposed Works and Existing Works.

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

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

1. The Owner 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 terms and conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
2. The Owner shall design, construct, operate and maintain the Works in accordance with the conditions of this Approval.
3. Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.

2. EXPIRY OF APPROVAL

1. This Approval will cease to apply to those parts of the Works which have not been constructed within five (5) years of the date of this Approval.

3. CHANGE OF OWNER

1. 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;
2. In the event of any change in ownership of the Works, other than a change to a successor municipality, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the District Manager and the Director.
 3. The Owner shall ensure that all communications made pursuant to this condition refer to the environmental compliance approval number.

4. CONSTRUCTION

1. The Owner shall ensure that the construction of the Works is supervised by a Licensed Engineering Practitioner.
2. The Owner shall ensure that the Waterloo Biofilter Treatment System is installed in accordance with the Manufacturer's Installation Manual.
3. Upon construction of the Works, the Owner shall prepare a statement, certified by a Licensed Engineering Practitioner, that the Works are constructed in accordance with this Approval, and upon request, shall make the written statement available for inspection by Ministry staff.
4. Upon construction of the Works, the Owner shall prepare a set of as-built drawings showing the works "as constructed", which shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the site for the operational life of the Works and shall be made available for inspection by Ministry staff.

5. EFFLUENT OBJECTIVES

1. The Owner shall design and undertake everything practicable to operate the Works within the Rated Capacity of the sewage treatment system.

6. EFFLUENT LIMITS

1. The Owner shall operate and maintain the Works such that the compliance limits of the parameters listed in the Table 1 of Schedule B are met, for the Final Effluent prior to discharging into the municipal drain known as Cowan D&W Drain.

7. OPERATIONS AND MAINTENANCE

1. The Owner shall ensure that, at all times, the 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 prepare an operations manual within six (6) months of the introduction of sewage to the Works, that includes, but not necessarily limited to, the following information:
 - a. operating procedures for routine operation of all the Works;
 - b. inspection programs, including frequency of inspection, for all the 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 all the Works; copies of maintenance contracts for any routine inspections & pump-outs should be included for all the tanks and treatment units;
 - d. procedures for the inspection and calibration of monitoring equipment;
 - e. a spill prevention control and countermeasures plan, consisting of contingency plans and procedures for dealing with equipment breakdowns, potential spills and any other abnormal situations, including notification of the District Manager; and
 - f. procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.
3. The Owner shall maintain the operations manual current and retain a copy at the location of the Works for the operational life of the Works. Upon request, the Owner shall make the manual available to Ministry staff.
4. The Owner shall have a valid written agreement with a hauler who is in possession of a Waste Management Systems Approval, for the treatment and disposal of the sludge generated from the Works, at all times during operation of the Works.
5. The Owner shall ensure the Grease Interceptors be cleaned out at least once per year, or more frequently as determined by the Works operator, for removal of fats, oil and grease from the kitchen wastewater prior to discharging the sewage to the septic tanks.
6. The Owner shall ensure that the septic tanks be inspected at least twice per year by a qualified person,

and the sewage sludge accumulated in the septic tanks be periodically withdrawn at the frequency required to maintain efficiency of the treatment system. The effluent filters in septic tanks shall be cleaned out minimum once per quarter, when the tank is pumped out, or as determined by the sewage Works operator, whichever comes first.

7. The Owner shall operate the Works so that there is no leakage, spill, discharge of raw sewage, and sewage from partial treatment to any surface waters.
8. The Owner shall employ or retain for the overall operation of the Works a person who possesses the level of training and experience sufficient to allow safe and environmentally sound operation of the Works.

8. 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 Tables 2 and 3 in Schedule C 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. definitions and preparation requirements for each sample type are included in document referenced in Paragraph 2.b.
 - c. definitions for frequency:
 - i. Weekly means once each week
 - ii. Bi-weekly means once every two weeks
2. 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 from time to time by more recently published editions;
 - b. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended; and
 - c. the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions.
3. The temperature and pH of the effluent from the Works shall be determined in the field at the time of

sampling for Total Ammonia Nitrogen.

4. The sampling frequencies, parameters and locations specified in subsection (2) are minimum requirements which may, after twelve (12) months of monitoring in accordance with this Condition, be modified by the Director in writing from time to time.
5. The Owner shall install and maintain a continuous flow measuring device, to measure the daily quantities of effluent from the Works being discharged to the municipal drain known as Cowan D&W Drain, with an accuracy to within plus or minus 15 per cent (+/- 15%) of the actual flowrate for the entire design range of the flow measuring device, and record the flowrate at a daily frequency.

9. REPORTING

1. One week prior to the start up of the operation of the Works, the Owner shall notify the District Manager (in writing) of the pending start up date.
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 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
4. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
5. The Owner shall prepare and submit a performance report, on an annual basis within ninety (90) days of the end of the operation season, to the District Manager. The reports shall contain, but shall not be limited to, the following information:
 - a. a summary and interpretation of all monitoring data and a comparison to the effluent limits outlined in Condition 6, including an overview of the success and adequacy of the Works;
 - b. a description of any operating problems encountered and corrective actions taken;
 - c. a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;
 - d. a summary of any effluent quality assurance or control measures undertaken in the reporting period;
 - e. a summary of the calibration and maintenance carried out on all effluent monitoring equipment;
 - f. a summary of flow data for the quantity of daily flow discharged from the sewage treatment system,

interpretation of all flow data, and assessment on whether or not the Rated Capacity of the Works is capable of handling the maximum daily flow rates.

- g. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- h. a tabulation of the volume of sludge generated in the reporting period, 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 of;
- i. a summary of all By-pass, spill or abnormal discharge events; and
- j. any other information the District Manager may require from time to time.

Schedule A

1. Application for Environmental Compliance Approval dated November 4, 2020 and received on November 23, 2020, submitted by Flavor Fresh Farms Ltd., for the proposed sewage treatment and surface discharge works, including design brief, engineering drawings and specifications.

Schedule B

Table 1 - Final Effluent Compliance Limits

Effluent Parameter	Monthly Average Concentration*¹ Limits (milligrams per litre unless otherwise indicated)	
	Summer (May 01 to October 31)	Winter (November 01 to April 30)
<i>Column 1</i>	<i>Column 2</i>	<i>Column 3</i>
CBOD5	10.0	15.0
Total Suspended Solids (TSS)	10.0	15.0
Total Phosphorus (TP)	0.3	0.3
Total Ammonia Nitrogen (TAN)* ²	2.0	3.0
<i>E. coli.</i>	100 CFU/100 millilitres* ³	100 CFU/100 millilitres* ³

Note*¹: The limit of *E.coli.* is for monthly Geometric Mean Density.

Note*²: During commissioning stage, **six (6) months** after the date of start-up, an interim compliance limit applies for the Total Ammonia Nitrogen (TAN) as: 4.0 mg/l during Summer (May 01 to October 31), or 6.0 mg/L during Winter (November 01 to April 3).

Note*³: If the MPN method is utilized for *E. coli* analysis, the limit shall be 100 MPN/100 millilitres.

Schedule C

Table 2 - Influent Monitoring

Sample location	Outlet of the 9,100 L Pump Tank #1 or #2
Frequency	Bi-weekly
Sample Type	Grab
Parameters	BOD5, Total Suspended Solids, Total Phosphorus, Total Ammonia Nitrogen, Total Kjeldahl Nitrogen, pH

Table 3 - Effluent Monitoring

Sample location	Final Effluent after UV Disinfection, prior to discharging into the municipal drain known as Cowan D&W Drain
Frequency	Weekly
Sample Type	Minimum 8-hour Composite (except <i>E.Coli.</i> , pH, and Temperature)
Parameters	CBOD5, Total Suspended Solids, Total Ammonia Nitrogen, Total Phosphorus, <i>E. coli.</i> (field, grab), pH (field, grab), and Temperature (grab/probe/analyzer)

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

1. Condition 1 is imposed to ensure that the Works are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review. The condition also advises the Owners their responsibility to notify any person they authorized to carry out work pursuant to this Approval the existence of this Approval.
2. Condition 2 is included to ensure that the Works are constructed in a timely manner so that standards applicable at the time of Approval of the Works are still applicable at the time of construction, to ensure the ongoing protection of the environment.
3. Condition 3 is included to ensure that the Ministry records are kept accurate and current with respect to the approved 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 4 is included to ensure that the Works are constructed in accordance with the approval and that record drawings of the Works "as constructed" are maintained for future references.
5. Condition 5 is imposed to establish non-enforceable Rated Capacity objective to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs.
6. Condition 6 is imposed to ensure that the effluent discharged from the Works to the municipal drain meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver.
7. Condition 7 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 and made available to the Ministry. 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 work.
8. Condition 8 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 effluent limits specified in the Approval and that the Works does not cause any impairment to the receiving watercourse.

9. Condition 9 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 all the terms and conditions outlined in this Approval, so that the Ministry can work with the Owner in resolving any problems in a timely manner.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me, the Environmental Review Tribunal and in accordance with Section 47 of the Environmental Bill of Rights, 1993, the Minister of the Environment, Conservation and Parks, within 15 days after receipt of this Notice, require a hearing by the Tribunal. The Minister of the Environment, Conservation and Parks will place notice of your appeal on the Environmental Registry. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

- a. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
- b. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Minister of the Environment,
Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario
M7A 2J3

AND

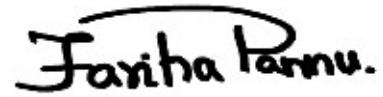
The Director appointed for the purposes of
Part II.1 of the Environmental Protection Act
Ministry of the Environment,
Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

This instrument is subject to Section 38 of the Environmental Bill of Rights, 1993, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <https://ero.ontario.ca/>, you can determine when the leave to appeal period ends.

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 31st day of March, 2021



Fariha Pannu, P.Eng.

Director

appointed for the purposes of Part II.1 of the
Environmental Protection Act

NH/

- c: Area Manager, MECP Windsor Area Office
- c: District Manager, MECP Sarnia District Office
- Sandra Swanton, K. Smart Associates Limited