

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

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 8186-BS7HQG Issue Date: September 25, 2020

Albuna Express Ltd. 306 Essex Road 18 Leamington, Ontario

N8H 3V5

Site Location: 306 County Road 18

Municipality of Leamington County of Essex, Ontario

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

the establishment of sewage treatment and subsurface disposal works for the treatment and disposal of domestic sewage from bunkhouse, greenhouse/warehouse facilities, and one residence building, located at 306 County Road 18, in the Municipality of Leamington, consisting of the following:

Sewage Works Serving Bunkhouse/Greenhouse

sewage treatment and subsurface disposal works with a total Rated Capacity of 15,000 litres per day, serving a bunkhouse for accommodating a total of 40 on-site workers, and greenhouse/warehouse facilities and with 60 other employees, consisting of the follow:

- one (1) existing 13,600 litre septic tank, receiving sewage from bunkhouse washrooms and washrooms located in the greenhouses and warehouse, equipped with an effluent filter, discharging into a 18,200 litre sludge tank;
- one (1) 6,590 litres grease interceptor, receiving sewage from the kitchen of the bunkhouse, and discharging into a 18,200 litre sludge tank;
- two (2) sludge tanks (Anaerobic Digesters No.1 and No 2), each having a volume of 18,200 litres, operating in series and connected via a 9,100 litre pump tank, discharging effluent from Sludge Tank No.2 into a 15,900 litre Biofilter Dosing Tank;
- One (1) 15,900 litre Biofilter Dosing Tank, equipped with duplex effluent pumps rated at 114 litres per minute at a Total Dynamic Head (TDH) of 9.8 metres, discharging into a Waterloo Biofilter Treatment

System;

- One (1) Waterloo Biofilter Treatment System consisting of two (2) 25,000 litre Biofilter Treatment Tanks, Biofilter Tank No.1 and No.2, each comprising of spray units and two mesh baskets filled with Biofilter media, with the tanks hydraulically connected by under drains, with one basket in Biofilter Tank No.1 and two baskets in Biofilter Tank No.2 receiving effluent form the Biofilter Dosing Tank, and one basket in Biofilter Tank No.1 receiving effluent from Biofilter Tank No.1 as a closed loop basket. Biofilter Tank No.1 is equipped with a simplex effluent pump to dosing a portion of treated effluent to the Closed Loop Biofilter Basket, another simplex effluent pump for recirculating to the inlet of Anaerobic Digester No.2, and duplex effluent pumps discharging treated effluent into existing gravity disposal sewer;
- One (1) 9,000 litre Disposal Dosing Tank receiving treated effluent from the gravity disposal sewer, equipped with duplex effluent pumps to dose subsurface disposal leaching bed at a dosing rate of 1580 litres per dose;
- One (1) chemical dosing system housed in control building with provisions to dose phosphorus removal chemicals and/or bacteria to Anaerobic Digesters #1, #2 and the Biofilter Dosing Tank; and
- One (1) expanded subsurface disposal leaching bed consisting of 420 metre long (arranged in 28 runs and each 15 metre of length, spaced 1.6 metres apart) of absorption trenches constructed with Type II Leaching Chambers and 75 millimetre diameter distribution pipe installed in native sandy soil with a percolation time of 6 minutes per centimetre, complete with a 480 square metre mantle area extending 15 metres in northern directions.

Existing Sewage Works Serving Residence Building

- one (1) existing septic system serving the residence building at the site, having a Rate Capacity of 4,000 litres per day, consisting of an 8,000 litre septic tank and subsurface disposal bed consisting of Type II Leaching Chambers constructed in native sand soil.
- all other controls, electrical equipment, instrumentation, piping, valves and appurtenances essential for the proper operation of the aforementioned sewage Works.

All in accordance with the supporting documents set out in Schedule A attached to this Approval.

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

- 1. "CBOD5" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;
- 2. "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;
- 3. "District Manager" means the District Manager of the Sarnia/Windsor District Office;

- 4. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;
- 5. "Licensed Installer" means a person who holds a licence under Article 2.12.3.1 of the Ontario Building Code;
- 6. "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;
- 7. "OBC" means the Ontario Building Code;
- 8. "Owner" means Albuna Express Ltd., and its successors and assignees;
- 9. "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40, as amended;
- 10. "Rated Capacity" means design daily sanitary sewage flow for which the Works are approved to handle;
- 11. "Professional Engineer" means a person entitled to practice as a Professional Engineer in the Province of Ontario under a licence issued under the Professional Engineers Act;
- 12. "Single Sample Concentration" means the concentration 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;
- 13. "Works" means the sewage works described in the Owner's application and this Approval.

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

TERMS AND CONDITIONS

1. 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 installer or a Professional Engineer, as defined in the *Professional Engineers Act*.
- 2. The Owner shall ensure that the each of 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 installer or a Professional Engineer, 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.

5. EFFLUENT OBJECTIVES

1. The Owner shall design and undertake everything practicable to operate the sewage works serving

bunkhouse/greenhouses in accordance with the following objectives:

a. The total flow of treated effluent from the Waterloo Biofilter Treatment System discharged into the subsurface disposal leaching bed does not exceed the Rated Capacity of 15,000 litres per day.

6. EFFLUENT LIMITS

1. The Owner shall operate and maintain sewage works serving bunkhouse/greenhouses such that compliance limits for listed in the Table 1 - Effluent Compliance Limits Table in **Schedule B** are met in the effluent from the Waterloo Biofilter Treatment System prior to discharging into the subsurface disposal leaching bed.

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 to and recording public complaints, including recording any follow-up actions taken.
- 3. The Owner shall maintain an up to date operations manual and make the manual readily accessible for reference at 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 prepare and make available for inspection by Ministry staff, a maintenance agreement with the manufacturer for the treatment process/technology and a complete set of "as constructed" drawings within one (1) year of Substantial Completion of the Works. The maintenance agreement and drawings must be retained at the site and kept current.
- 5. The Owner shall ensure that all septic tanks are pumped out every 3-5 years or when the tank is 1/3 full of solids and the effluent filters are cleaned out at minimum once a year or more often if required.
- 6. The Owner shall ensure that grass-cutting is maintained regularly over all the subsurface disposal beds, and the drainage operations in all beds are visually observed on a monthly basis. In the event a break-out is observed from a subsurface disposal bed, the Owner shall ensure that the sewage discharge to the bed is discontinued and the incident immediately reported verbally to the District Manager, followed by a written report within one (1) week. The Owner shall ensure that during the time remedial actions are taking place the sewage generated at the site shall not be allowed to discharge to a surface water body or to the environment, and safely collected and disposed off through a licensed waste hauler to an approved waste disposal site.
- 7. The Owner shall ensure that adequate steps are taken to ensure that the area of the Works are protected from all forms of vehicle traffic.
- 8. The Owner shall employ 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 **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. Monthly means once every month
- 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 publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended from time to time by more recently published editions;
- b. the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition), as amended from time to time by more recently published editions; and
- c. an approved method that meets the same data quality objectives specified in either of the above documents.
- 3. The Owner shall employ any measurement devices to accurately measure quantity of effluent being discharged to the subsurface disposal leaching bed, including but not limited to water/wastewater flow meters, event counters, running time clocks, or electronically controlled dosing, and shall record the daily volume of effluent being discharged to the subsurface disposal leaching bed.
- 4. The measurement parameters, frequencies and locations specified in subsection 1 in respect to any parameter are minimum requirements which may, after **one** (1) **year** of monitoring in accordance with this Condition, be modified by the Director in writing from time to time when approved by District Manager upon reviewing annual monitoring and performance report.
- 5. 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.

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 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.
- 3. 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".
- 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 (Condition 6) including an overview of the success and adequacy of the Works;
- b. a review and assessment of performance of Works, including sewage treatment units and subsurface disposal beds;
- c. a description of any operating problems encountered and corrective actions taken at all sewage Works located at the property;
- d. a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of all Works located at the property;
- e. a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- f. a summary and description of efforts made and results achieved in meeting the Effluent Objectives of Condition 5;
- g. a summary and interpretation of all flow data and results achieved in not exceeding the maximum daily flow discharged into each subsurface disposal system;
- h. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- i. a summary of all spill or abnormal discharge events; and
- j. any other information the District Manager requires from time to time.

Schedule A

1. Application for Environmental Compliance Approval dated May 11, 2020 and received on June 22, 2020, and submitted by Jacob Harms, President, Albuna Express Ltd., for the proposed sewage treatment and subsurface disposal systems, including design brief, final plans and specifications.

Schedule B

Table 1 - Effluent Compliance Limits (Effluent from Waterloo Biofilter Treatment System)

Final Effluent Parameter	Averaging Calculator	Concentration Limits (milligrams per litre unless otherwise indicated)
CBOD5	Single Sample Concentration	25.0
Total Suspended Solids	Single Sample Concentration	30.0
Total Phosphorus	Single Sample Concentration	0.6

Schedule C

Table 2 - Effluent Monitoring Table

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Sample locations	treated effluent from Waterloo Biofilter Treatment System, prior to	
	discharging into the subsurface disposal leaching bed	
Sample Type	Grab	
Frequency	Monthly during operation	
Parameters	CBOD5, Total Suspended Solids (TSS), and Total Phosphorus	

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

- 1. Condition 1 regarding general provisions is imposed to ensure that the Works are constructed and operated in the manner in which they were described and upon which approval was granted.
- 2. Condition 2 is included to ensure that, when the Works are constructed, the Works will meet the standards that apply 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, and may be operated and maintained such that the environment is protected and deterioration, loss, injury or damage to any person or property is prevented.
- 5. Condition 5 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.
- 6. Condition 6 is imposed to ensure that the effluent discharged from the Works to the groundwater 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, and equipped such that the environment is protected. As well, the inclusion of an operations manual, maintenance agreement with the manufacturer for the treatment process/technology and a complete set of "as constructed" drawings 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 information 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 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 Director appointed for the purposes of The Secretary* The Minister of the Environment, Part II.1 of the Environmental Protection Act Environmental Review Tribunal Conservation and Parks Ministry of the Environment, 655 Bay Street, Suite 1500 AND 777 Bay Street, 5th Floor AND Conservation and Parks Toronto, Ontario Toronto, Ontario 135 St. Clair Avenue West, 1st Floor M5G 1E5 M7A 2J3 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 25th day of September, 2020



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