

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 5358-BQVKYK
Issue Date: June 30, 2020

Shuling Li
3 Castle Court
Markham, Ontario
L6C 1B4

Site Location: 3 Castle Court
City of Markham, Regional Municipality of York
L6B 1C4

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:

establishment, use and operation of the proposed sewage Works for the treatment and subsurface disposal of domestic sewage with a daily sanitary sewage flow of 10,550 litres per day (L/d) with a balanced sewage flow of 7,250 L/d to service a proposed 9-bedroom residence, located at the above noted location, and consisting of the following.

Waterloo Biofilter Primary Treatment Tank (anaerobic digester):

One (1) primary treatment tank with a capacity of approximately 22,500 L discharging effluent by gravity to the Pump/Balancing Station described below.

Pump/Balancing Station:

One (1) proposed precast concrete single compartment pump tank with a total capacity of 22,500 L, equipped with 1/2 HP Little Giant pump model WS50HM (or Equivalent Equipment) to time dose 75.5 L per dose, each 15 minutes for 96 doses per day to the Waterloo Biofilter treatment unit described below.

Waterloo Biofilter Treatment Unit:

One (1) proposed Waterloo Biofilter treatment unit (Model BA80) inside a concrete tank rated at 8000 L/day, equipped with two (2) biofilter baskets containing minimum 11.2 m³ foam filter media and one (1) 1/2 HP Little Giant WS50HM effluent pump (or equivalent) demand-dosing effluent not exceeding 7,250 L/day to the Type 'A' dispersal bed described below and recirculating 50% of the

effluent to the primary treatment tank.

Type A Leaching Bed:

One (1) Type A dispersal bed consisting of eight (8) runs of 75 mm diameter distribution piping, each sixteen (16) m long, installed 1 m apart centre to centre, installed within a 300 mm thick OBC approved stone layer located at least 600 mm above high ground water table or rock with a minimum area of 147 m² overlying a minimum 300 mm thick OBC approved sand mantle with percolation time of 6~10 min/cm placed directly beneath the stone layer extending at least 15.3 m beyond the perimeter of the distribution pipes in any direction that the effluent entering the soil will move horizontally, with a total sand area of 880 m².

all in accordance with Supporting Documentation submitted to the Ministry as listed in the **Schedule A** in this Approval.

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

"Approval" means this entire document and any schedules attached to it, and the application;

"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;

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

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

"Equivalent Equipment" means a substituted equipment or like-for-like equipment that meets the required quality and performance standards of a named equipment;

"Licensed Installer" means a person who is registered under the OBC to construct, install, repair, service, clean or empty on-site sewage systems;

"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;

"OBC" means the *Ontario Building Code* ;

"Owner" means Shuling Li and its successors and assignees;

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

"Professional Engineer" means a person entitled to practice as a Professional Engineer in the Province of Ontario under a license issued under the *Professional Engineers Act* ;

"Supporting Documentation" means the documents listed in Schedule A of this Approval;

"Works" means the sewage works described in the 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 conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
2. Except as otherwise provided by these conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Approval, and the application for approval of the Works.
3. Where there is a conflict between a provision of any document in the schedule referred to in this Approval and the conditions of this Approval, the Conditions in this Approval shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.
4. Where there is a conflict between the documents listed in the Schedule submitted documents, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.
5. The Conditions of this Approval are severable. If any Condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

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 issuance 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 Owner or operating authority, or both;
 - b. change of address of Owner or operating authority or address of new Owner or operating authority;
 - c. change of partners where the Owner or operating authority is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Partnerships Registration Act*;
 - d. change of name of the corporation where the Owner or operator is or at any time becomes a corporation, and a copy of the most current "Initial Notice or Notice of Change" (Form 1, 2 or 3 of O. Reg. 189, R.R.O. 1980, as amended from time to time), filed under the *Corporations Information Act* , shall be included in the notification to the District Manager;
2. In the event of any change in ownership of the Works, 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.
3. The Owner shall ensure that all communications made pursuant to this condition will refer to this Approval's number.

4. CONSTRUCTION

1. The Owner shall ensure that the construction of the Works is supervised by a Licensed Installer or a Professional Engineer.
2. The Owner shall ensure that the Works are constructed such that minimum horizontal clearance distances as specified in the OBC are satisfied.
3. Upon construction of the Works, the Owner shall prepare a statement, certified by 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 and staff of the local municipality.
4. Upon construction of the Works, as-built drawing(s) showing the works "as constructed" shall be prepared by the Licensed Installer or a Professional Engineer. The drawing(s) shall be kept up to date through revisions undertaken from time to time and a copy shall be retained at the Works for the operational life of the Works.

5. OPERATIONS, MAINTENANCE, MONITORING AND RECORDING

1. The Owner shall ensure that at all times, the Works and related equipment and appurtenances which are installed or used to achieve compliance with this Approval are properly operated and maintained.
2. The Owner shall sign a service and maintenance agreement with the manufacturer or approved agent of the Waterloo Biofilter treatment system. The maintenance agreement must be retained at the site for as long as the Works are in operation, kept current and made available for inspection by the Ministry staff.
3. The Owner shall receive from the manufacturer or distributor of the Waterloo Biofilter treatment system printed literature that describes the unit in detail and provides complete instructions regarding the operation, servicing, and maintenance requirements of the unit and its related components necessary to ensure the continued proper operation in accordance with the original design and specifications.
4. The Owner shall ensure that the treatment system is at minimum inspected annually by the Waterloo Biofilter treatment system authorized personnel, and maintained according to the manufacturer's recommendations including minimal yearly effluent sampling for CBOD₅ and Total Suspended Solids to ensure that it meets design objectives of 10 mg/l for both CBOD₅ and Total Suspended Solids in a grab effluent sample before discharge to the subsurface disposal bed;
5. The Owner shall ensure that grass-cutting is maintained regularly over the subsurface disposal bed, and that adequate steps are taken to ensure that the area of the underground works is protected from vehicle traffic.
6. In the event a break-out is observed from the 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 seven (7) days. 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 of through a licensed waste hauler to an approved waste disposal site.
7. The Owner shall maintain a logbook to record the results of operation and maintenance activities specified in the above subclauses, and shall keep the logbook at the site and make it available for inspection by the Ministry staff.
8. 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.

6. 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 of the Works.

Schedule A

1. Application for Environmental Compliance Approval submitted by Shuling Li received on October 21, 2019 for the proposed Municipal and Private Sewage Works, including design brief, final plans and specifications prepared by Eric Gunnell, P.Eng., of Gunnell Engineering Ltd.

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, 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 is included to require that the Works be properly operated, maintained, and equipped such that the environment is protected.
6. Condition 6 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 30th day of June, 2020



Fariha Pannu, P.Eng.
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

JC/

c: District Manager, MECP York-Durham District Office
Eric Gunnell, Gunnell Engineering Ltd.