

**ENVIRONMENTAL COMPLIANCE APPROVAL**NUMBER 2094-BBYQBF  
Issue Date: July 31, 2019

Nieuwland Feed & Supply Limited  
96 Wellington St N  
Mapleton, Ontario  
N0G 1P0

Site Location: 96 Wellington Street, Drayton  
Township of Mapleton , County of Wellington  
N0G 1P0

*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 of an onsite subsurface disposal system with a Rated Capacity of 30,000 L/day for disposal of reverse osmosis reject and boiler blowdown industrial wastewater generated during the production process at Nieuwland Feed and Supply Ltd to accommodate the plant expansion in a 15.0 hectares property, located at above location, consisting of following:

- one (1) dual-chamber concrete Sewage Holding Tank with a working volume of minimum 9,000 L, complete with liquid level floats and a high level alarm, equipped with two (2) alternating dosing pumps, each rated at 200 L/min and 47 m TDH, discharging via twin 50 mm diameter 560 m long forcemains to two (2) distribution boxes of a subsurface Disposal System described below;
- one (1) onsite Subsurface Disposal System, with a Rated Capacity of 30,000 L/day, consisting of,
  - two (2) distribution boxes, each dedicated to a bed; and
  - two (2) equally-sized Type A Dispersal Beds located at the north-east corner of the property and distanced from the creek intersecting the property for about 188 m, partially raised to conform with the proposed grading, to have a total loading area of 4,000 m<sup>2</sup> with distribution pipes of 540 m. Each bed consists of,
    - nine (9) runs of 30 m long 75 mm diameter perforated PVC distribution pipe spaced at 4.0 m centre to centre, oriented along north-south direction. Each run to be installed in a minimum 200 mm deep washed clear stone trench protected with filter fabric,
    - underlaid by minimum 600 mm thick approved imported sand fill with a percolation T-time of 6-10 min/cm and backfilled with approximately 150 mm thick sand on the stone layer and topped with 100 mm thick topsoil; and
    - complete with sand mantle extending at 1V:5H slope from the perimeter of the loading area to the

native grade, with mantle width up to 15 m to the south of the beds.

including erosion/sedimentation control measures during construction, and all other mechanical system, electrical system, instrumentation and control system, piping, and appurtenances essential for the proper, safe and reliable operation of the Works in accordance with this Approval, in the context of process performance and general principles of wastewater engineering only;

all in accordance with supporting documents listed in **Schedule A**.

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

1. "Approval" means this entire document and any schedules attached to it, and the application;
2. "District Manager" means the District Manager of the Guelph District Office of the Ministry;
3. "Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;
4. "EPA" means the *Environmental Protection Act*, R.S.O. 1990, c.E.19, as amended;
5. "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;
6. "Owner" means Nieuwland Feed & Supply Limited, and its successors and assignees;
7. "OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O.40, as amended;
8. "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* ;
9. "Rated Capacity" means the maximum design daily sewage flow for which the sewage treatment and subsurface disposal Works are designed to handle;
10. "Substantial Completion" has the same meaning as "substantial performance" in the *Construction Lien Act* ;
11. "Supporting Documentation" means the documents listed in **Schedule A** of this Approval; and
12. "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 CONDITION**

(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 A, 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.

(6) The issuance of, and compliance with the conditions of, this Approval **does not**:

(a) relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including, but not limited to, the obligation to obtain approval from the local conservation authority necessary to construct or operate the sewage Works; or

(b) limit in any way the authority of the Ministry to require certain steps be taken to require the Owner to furnish any further information related to compliance with this Approval.

## 2. 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. CONSTRUCTION OF WORKS

- (1) The Owner shall ensure that the design and construction of the Works is supervised by a Professional Engineer.
- (2) 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.
- (3) Within six (6) months of the construction of the Works, a set of as-built drawings showing the Works "as constructed" shall be prepared. These drawings shall be kept up to date through revision undertaken from time to time and a copy shall be retained for the operational life of the Works.
- (4) All Works in this Approval shall be constructed and installed and must commence operation within five (5) years of issuance of this Approval, after which time the Approval ceases to apply in respect of any portions of the Works not in operation. In the event that the construction, installation and/or operation of any portion of the Proposed Works is anticipated to be delayed beyond the time period stipulated, the Owner shall submit to the Director an application to amend the Approval to extend this time period, at least six (6) months prior to the end of the period. The amendment application shall include the reason(s) for the delay and whether there is any design change(s).

4. EFFLUENT OBJECTIVES

- (1) The Owner shall use best efforts to design, construct and operate the Works with the objective that the concentrations of the materials named below as effluent parameters are not exceeded in the effluent from the Works.

Effluent Parameter	Concentration (milligrams per litre unless otherwise indicated)
Column 1	Column 2
CBOD5	10
TSS	10
Hydrogen Ion (pH)	6.5-8.5, inclusive

- (2) For the purposes of determining exceedance with Subsection (1),
  - (a) exceedance with respect to a Concentration objective is deemed to have occurred when any single grab sample analyzed for a parameter named in Column 1 of Subsection (1) is greater than the corresponding concentration set out in Column 2 of Subsection (1);
  - (b) exceedance with respect to pH objective is deemed to have occurred when any single measurement is outside of the stated range outlined in the Table 1.
- (3) The Owner shall use best efforts at all time to operate the Works within the Rated Capacity of the sewage treatment system.

5. COMPLIANCE LIMITS

- (1) The Owner shall design, construct and operate the Works such that the concentrations of the

materials named below as effluent parameters are not exceeded in the effluent from the Works.

<b>Table 2 - Effluent Limits</b>	
Effluent Parameter	Concentration (milligrams per litre unless otherwise indicated)
Column 1	Column 2
CBOD5	10
Total Suspended Solids (TSS)	10
Hydrogen Ion (pH)	6.0 to 9.5 (no units), inclusive, at all times

(2) For the purposes of determining compliance with and enforcing Subsection (1):

(a) non-compliance with respect to pH is deemed to have occurred when any single measurement is outside of the stated range outlined in Table 2; and

(b) non-compliance with respect to CBOD5 and TSS Limit is deemed to have occurred when any single grab sample analyzed for a parameter named in Column 1 of Table 2 in Subsection (1) is greater than the corresponding maximum concentration set out in Column 2 of these table.

## 6. MONITORING AND RECORDING

The Owner shall, upon commencement of operation of the sewage works, carry out the following monitoring program:

(1) All samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.

(2) Definitions for sampling frequency:

(a) Monthly means once every month.

(3) Samples shall be collected and analyzed at the following sampling point(s), at the sampling frequencies and using the sample type specified for each parameter listed:

<b>Table 3 - Effluent Monitoring</b>		
Sampling Location: the 9,000-L Sewage Holding Tank outlet prior to effluent subsurface disposal		
<b>Parameters</b>	<b>Sample Type</b>	<b>Frequency</b>
CBOD5	Grab	Monthly
Total Suspended Solids	Grab	Monthly
Total Dissolved Solids	Grab	Monthly
Nitrate and Nitrite Nitrogen	Grab	Monthly
Sulphate	Grab	Monthly
Diethylaminoethanol *	Grab	Monthly
Cyclohexylamine *	Grab	Monthly
Alkalinity	Grab	Monthly
pH	Grab	Monthly

\*Alternatively, the Owner shall, once per month, record the daily dosage rate and mass loading of Klenzamine KF (Cyclohexylamine and Diethylaminoethanol) applied to the boiler system, and daily boiler blowdown rate, estimate the concentrations of Cyclohexylamine and Diethylaminoethanol presented in the boiler blowdown as well as in the effluent of

the 9,000-L Sewage Holding Tank, based on most conservative assumption (i.e. no loss to vapour).

(4) The monitoring outlined pursuant to Subsection (3) shall be undertaken for a period of at least two (2) years following the start up of the Works.

(5) Prior to the start-up of the Works, background groundwater quality must be established by collecting groundwater samples and having them analyzed for the parameters outlined in Table 3.

(6) The methods and protocols for sampling, analysis, toxicity testing, and recording shall conform, in order of precedence, to the methods and protocols specified in the following:

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

(b) the publication "Standard Methods for the Examination of Water and Wastewater", as amended.

(7) The measurement frequencies specified in Subsection (3) in respect of any parameter are minimum requirements which may, after twenty four (24) months of monitoring in accordance with this Condition, be modified by the Director, upon receiving written recommendation from the District Manager, in writing from time to time.

(8) Continuous flow measuring devices shall be installed and maintained to measure the flowrates of the effluent past the sampling points under Subsection (3), each with an accuracy to within plus or minus 15 per cent of the actual flowrate for the entire design range of the flow measuring device and the Owner shall measure, record and calculate the flowrate for each effluent stream on each day of sampling.

(9) 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.

## 7. OPERATION 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 prior to the commencement of operation of the sewage works, that includes, but not necessarily limited to, the following information:

(a) operating procedures for routine operation of the Works;

(b) inspection programs, including frequency of inspection, for 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) 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

(e) procedures for receiving, responding and recording public complaints, including recording any follow-up actions taken.

(3) The Owner shall maintain the operations manual up to date through revisions undertaken from time to time and retain a copy at the location of the sewage works. Upon request, the Owner shall make the manual available for inspection and copying by Ministry personnel.

(4) The Owner shall comply with the requirements of Spill Prevention, Contingency and Response Plans in accordance with O. Reg. 224/07 and other applicable provincial legislation associated with environmental emergency prevention, reporting and response plan development and implementation requirements.

(5) 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.

(6) 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. REPORTING

(1) One (1) 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 or designate, any exceedance of any parameter specified in Condition 5 (Compliance Limits) orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedance.

(3) In addition to the obligations under Part X of the *Environmental Protection Act*, the Owner shall, within ten (10) working days of the occurrence of any reportable spill as defined in Ontario Regulation 675/98, bypass or loss of any product, by-product, intermediate product, oil, solvent, waste material or any other polluting substance into the environment, submit a full written report of the occurrence to the District Manager describing the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken and schedule of implementation.

(4) The Owner shall prepare and submit a performance report to the District Manager on an annual basis within ninety (90) days following the end of the period being reported upon. The first such report shall cover the first annual period following the commencement of operation of the Works and subsequent reports shall be submitted to cover successive annual periods following thereafter. 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 compliance limits outlined in Condition 5, including an overview of the success and adequacy of the sewage 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 sewage 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 description of any failure to meet a requirement of this Approval, including the cause of such failure and the action proposed or taken to comply with same;
- (g) a description of efforts made and results achieved in meeting the Effluent Objectives of Condition 5;
- (h) a summary and interpretation of all flow data and results achieved in not exceeding the maximum daily flow discharged into the subsurface disposal system;
- (i) a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- (j) a summary of all spill or abnormal discharge events; and
- (k) any other information the District Manager requires from time to time.



### **Schedule A**

1. Environmental Compliance Approval Application for Industrial Sewage Works, submitted by Scott Nieuwland of Nieuwland Feed & Supply Limited, dated March 5, 2018, and received by the Ministry on January 25, 2019, and all supporting documentation, design report and engineering drawings, prepared by GM BluePlan Engineering Limited in January 2019, and certified by Matthew Nelson, P. Eng. on June 27, 2019.
2. Emails of June 28, 2019 from GM BluePlan Engineering Limited in response to the Ministry's requests for information, confirming that an new overburden well is established onsite to supply source water for industrial process use, and concentration of compounds including, but not limited to, dissolved sulphate, TDS, nitrate and nitrite presented in the groundwater from this well is low.

*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.
2. Condition 2 is included to ensure that the Ministry records are kept accurate and current with respect to 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.
3. Condition 3 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, and ensure that the Works are constructed in accordance with the Approval and that record drawings of the Works "as constructed" are updated and maintained for future references.
4. Condition 4 is imposed to establish non-enforceable effluent quality objectives which the Owner is obligated to use best efforts to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs and before the compliance limits imposed on the Sewage Holding Tank effluent are exceeded.
5. Condition 5 is imposed to ensure that the effluent discharged from the Works to the subsurface meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver.
6. Condition 6 is included to require the Owner to demonstrate on a continual basis that the quality and quantity of the effluent from the approved works is consistent with the effluent compliance limits specified in the Approval and that the approved works does not cause any impairment to the receiving watercourse.
7. Condition 7 is included to ensure that 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 Works.
8. Condition 8 is included to provide a performance record for future references and to ensure that the Ministry is made aware of problems as they arise, so that the Ministry can work with the Owner in resolving the 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](http://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 [www.ebr.gov.on.ca](http://www.ebr.gov.on.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 July, 2019



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Youssouf Kalogo, P.Eng.  
Director  
appointed for the purposes of Part II.1 of the  
*Environmental Protection Act*

YD/

c: District Manager, MECP Guelph  
Matthew Nelson, GM BluePlan Engineering Limited