

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 0554-BU4JGL
Issue Date: October 22, 2020

Sulco Chemicals Limited
60 First Street Extension St E
Post Office Box, No. 126
Elmira, Ontario
N3B 2E4

Site Location: Sulco Chemicals - 60 First Street East
60 First Street Extension E Elmira
Woolwich Township, Regional Municipality of Waterloo
N3B 2E4

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:

usage and operation of existing industrial sewage works, with a Rated Capacity of 216 m³/day, for the collection and the treatment of process wastewater and contaminated rainwater from an Inorganic Chemical manufacturing facility located at the above noted Site Location and disposal of treated effluent to Canagagigue Creek as follows:

SEWAGE COLLECTION - MAIN POINTS

- **One catch basin** - Packaging Pit" (1.05 m x 1.60 m x 1.00 m deep) to collect and neutralize wash / rinse water from the corrosives packaging process in the packaging building.

Inputs:

- Packaging process, container washing

- **One cubic sump** - "10 x 10" (3.05 m x 3.05 m x 3.05 m) that is pH monitored to collect waste streams from the main sulphuric acid plant.

Inputs:

- Reverse Osmosis (RO) process water – (1 x 101.6 mm circular) Drain to cubic sump in the SE corner of the RO Unit (RO capacity to treat approximately 420 L/min of raw water)

- Water Softening process water – (1 x 101.6 mm circular) Drain to cubic sump in the basement (underneath absorption towers).
 - 3 x water softening units (762 mm diameter, 0.42 m³ resin capacity)
 - Boiler Blow Down process water – drain direct from boiler blow down tank
 - SO₂ Scrubber process water – (1 x 152.4 mm circular) Drain to cubic sump in the East side of the boiler
 - SO₃ Scrubber process water – (1 x 152.4 mm circular) Drain to the cubic sump in the North side of the sulphur furnace
 - Cooling tower blow down process water – Drain to the cubic sump via SO₃ Scrubber
 - Series of floor drains (6 x 101.6 mm circular) in the RO water processing area
 - Series of floor drains (2 x 101.6 mm circular) at the clear well pumps in the boiler room
 - Series of floor drains (2 x 101.6 mm circular) at the boiler blowdown sample valve
 - Series of floor drains (2 x 101.6 mm circular) at the sulphuric acid loading pumps
 - 3 x (600 mm x 600 mm) catch basins at the rail loading area (A5, A4 and A2)
 - 2 x (600 mm x 600 mm) catch basins at Packaging Building loading dock area
 - 1 x (600 mm x 600 mm) catch basins at Sulphur unloading area (main parking lot)
 - 1 x (600 mm x 600 mm) catch basins at Sulphuric Acid truck loading platform
- **Two catch basins** - Double catch basin” (600 mm x 600 mm), used as a sump in the southeast tank farm area, which are pH monitored.

Inputs:

- Storm water collection from southeast tank farm area.
- Series of floor drains (3 x 101.6 mm circular) from the MISA sampling and cooling water process area.
- Cooling tower blow down process water
- One 300 mm clay and concrete lined area with holding capacity greater than 590,000 L - Oleum building spill containment dyke”

- Concrete and earth berms on three sides of the sulphuric acid storage tanks (southeast tank farm).

SEWAGE TREATMENT - MAIN STEPS

Treatment step 1: Primary settling of solids

- One Primary settling basin with approximate dimensions (7.62 m wide by 9.14 m long and 2.14 m deep)

Inputs:

- All Main Collection Points listed above

Treatment step 2: pH adjustment and Ferric Chloride addition for initiation of solids settling.

- One Secondary settling basin with approximate dimensions (7.62 m wide by 21.34 m long and 2.14 m deep)

Inputs:

- Primary settling basin

Treatment step 3: Solids settling

- One sump with approximate dimensions (1.52 m by 1.52 m) that is pH and flow monitored from which effluent is pumped for polishing through sand filter(s) (762 mm diameter, 0.42 m³ capacity)

Inputs:

- Secondary settling basin

Treatment step 4: Final removal of solids

- Bag filter(s) (178 mm diameter x 813 mm length – 1-micron nominal filtering capacity)

Inputs:

- Sand filters

Treatment step 5: Effluent Sampling

- One wastewater sampling system (composite sampler) 24 hour, flow based composite sampling for meeting effluent sampling requirements.

including all other controls, electrical equipment, instrumentation, piping, pumps, valves and appurtenances essential for the proper operation of the aforementioned sewage works.

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

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

"Approval" means this entire Approval document and any Schedules to it, including the application and

Supporting Documentation;

"Daily Concentration" means the concentration of a contaminant in the effluent discharged over any single day, as measured by a composite or grab sample, whichever is required;

"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 are geographically located;

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

"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;

"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;

"Owner" means Sulco Chemicals Limited, and includes its successors and assignees;

"Rated Capacity" means the Average Monthly Flow for which the Works are approved to handle;

"Works" means the sewage works described in 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 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 referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.
4. 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. CHANGE OF OWNER AND OPERATING AUTHORITY

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. The Owner shall notify the District Manager, in writing, of any of the following changes within thirty (30) days of the change occurring:
 - a. change of address of Operating Authority;
 - b. change of Operating Authority, including address of new Operating Authority.
3. In the event of any change in ownership of the Works, the Owner shall notify the succeeding owner in writing, of the existence of this Approval, and forward a copy of the notice to the District Manager.
4. The Owner shall ensure that all communications made pursuant to this condition refer to the environmental compliance approval number.

3. RECORD DRAWINGS

1. A set of record drawings of the Works shall be kept up to date through revisions undertaken from time to time and a copy shall be readily accessible for reference at the Works.

4. DESIGN OBJECTIVES

1. The Owner shall design and undertake everything practicable to operate the Sewage Works in accordance with the following objectives:

- a. Final Effluent parameters design objectives in the table included listed in **Schedule B**.
- b. Final Effluent is essentially free of floating and settleable solids and does not contain oil or any other substance in amounts sufficient to create a visible film or sheen or foam or discolouration on the receiving waters.

5. COMPLIANCE LIMITS

1. The Owner shall operate and maintain the Works such that compliance limits for the Final Effluent parameters listed in the table included in **Schedule B** are met.

6. OPERATION AND MAINTENANCE

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 prepare an operations manual for the operation of the Works, maintain the operations manual up to date through revisions undertaken annually by June 1st of each year for the operational changes performed in the previous year 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.
3. The owner shall ensure that the manual includes the following information:
 - a. operating procedures for routine operation of the Works;
 - b. inspection program 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 the works;
 - d. contingency plans and procedures for dealing with potential spill, bypasses and any other abnormal situations and for notifying the District Manager;
 - e. the names and telephone numbers of at least two emergency contacts; and
 - f. complaint procedures for receiving and responding to public complaints.

7. 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. Daily means once every day;
 - ii. Weekly means once every week.
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;
 - b. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;
 - c. the publication "Standard Methods for the Examination of Water and Wastewater", as amended; and
 - d. for any parameters not mentioned in the documents referenced in Paragraphs 2.a, 2.b and 2.c, the written approval of the District Manager shall be obtained prior to sampling.
3. The Owner shall monitor and record the flow rate and daily quantity using flow measuring devices or other methods of measurement as approved below calibrated to an accuracy within plus or minus 15 per cent (+/- 15%) of the actual flowrate of the following:
- a. Final Effluent discharged from the Works by continuous flow measuring devices and instrumentations/pumping rates.
4. The Owner shall retain for a minimum of three (3) years from the date of their creation, all records and information related to or resulting from the monitoring activities required by this Approval.

8. REPORTING

1. 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.
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 submit the analytical results required by Condition 7.1 in an effluent monitoring and compliance report on a quarterly basis, within forty-five (45) days following the end of each quarter.
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 performance reports on annual basis and submit to the District Manager. The reports shall contain, but shall not be limited to, the following information pertaining to the reporting period:
 - a. a summary and interpretation of all Final Effluent monitoring data, including concentration, flow rates, and a comparison to the compliance limits in this Approval, including an overview of the success and adequacy of the Works;
 - b. a summary of all operating issues encountered and corrective actions taken;
 - c. a summary of all normal and emergency repairs and maintenance activities carried out on any major structure, equipment, apparatus or mechanism forming part of the Works;
 - d. a summary of any effluent quality assurance or control measures undertaken;
 - e. a summary of the calibration and maintenance carried out on all Final Effluent monitoring equipment to ensure that the accuracy is within the tolerance of that equipment as required in this Approval or recommended by the manufacturer;
 - f. a tabulation of the volume of sludge generated, 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;
 - g. a summary of any complaints received and any steps taken to address the complaints;
 - h. any other information the District Manager requires from time to time.

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 regarding change of Owner and Operating Authority is included to ensure that the Ministry records are kept accurate and current with respect to ownership and Operating Authority of the 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 record drawings of the Works "as constructed" are updated and maintained for future references.
4. Condition 4 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.
5. Condition 5 regarding compliance limits is imposed to ensure that the Final Effluent discharged from the Works to the environment meets the Ministry's effluent quality requirements
6. Condition 6 is included to ensure that the sewage works is operated, maintained and equipped in a manner enabling compliance with the terms and conditions of this Approval and 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.
7. Condition 7 regarding monitoring and recording 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 compliance limits.
8. Condition 8 regarding reporting 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 this Approval.

Schedule A

1. Application for Approval of Industrial Sewage Works submitted by Ron Kounich, President of Sulco Chemicals Limited, dated June 24, 2020, received on July 14, 2020 including all supporting documentation .

Schedule B

Final Effluent Design Objectives

Concentration Objectives

Final Effluent Parameter	Averaging Calculator	Objective (milligrams per litre unless otherwise indicated)
Total Phosphorus	Monthly	0.20
Total Suspended Solids	Monthly	5.0

Final Effluent Compliance Limits

Concentration Limits

Final Effluent Parameter	Averaging Calculator	Limits (milligrams per litre unless otherwise indicated)
Dissolved Organic Carbon	Monthly	6.1
Total Phosphorus	Monthly	0.32
Total Suspended Solids	Monthly	10

Schedule C

Monitoring Program

Final Effluent - Final Effluent sampling point

Parameters	Sample Type	Minimum Frequency
Dissolved Organic Carbon	24 hour composite	Weekly
Total Phosphorus	24 hour composite	Weekly
Total Suspended Solids	24 hour composite	Daily ^(a)

Note:^(a) three (3) days in each week when Condition 11 (2) titled "Monitoring - Process Effluent - Daily" in the MISA Notice for this facility is met.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 4-083-81-978 issued on March 3, 1997.

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.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

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 22nd day of October, 2020



Fariha Pannu, P.Eng.

Director

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

YK/

c: District Manager, MECP Guelph

Ryan Draper, Sulco Chemicals Limited