



Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en
matière de changement climatique

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 1236-AN9JQ2

Issue Date: June 19, 2017

The Corporation of the Town of Blind River
11 Hudson St
P.O. Box 640
Blind River, Ontario
P0R 1B0

Site Location: 22 Martin Street
Town of Blind River, Ontario
P0R 1B0

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:

municipal sewage works under Section 53 of OWRA for the transmission and treatment of sanitary sewage and disposal of effluent to Blind River via the Blind River Sewage Treatment Plant follows:

Rated Capacity: 3,500 m³/day;

PROPOSED WORKS:

Aeration System (to replace existing coarse bubble diffusers)

New Napier Reid aeration system complete with stainless steel piping, valves, 720 fine bubble disc EPDM diffusers distributing air to the sludge and aeration zones of the aeration tank.

UV System (to replace existing sodium hypochlorite disinfection system)

New Trojan UV disinfection system (UV 3000Plus) capable of delivering a UV dose of 30 mJ/cm² at a peak design flow of 7,689 m³/day consisting of 2 UV banks operating as duty/standby

PREVIOUS WORKS:

Sewage Pumping Station

- One (1) underground sewage pumping station with a wet well dimension of 2.1 m x 6.5 m, to be located adjacent to the south wall of the control building on the sewage treatment plant site equipped with two (2) new 20 hp dry pit variable frequency drive submersible pumps (Pump No. 1 and Pump No. 2), each designed to operate over the full range of plant design flow of 30 L/sec at a 6.6 m TDH to 89 L/sec at 8.5 m TDH. Pumping station equipped with an emergency overflow sewer from the pumping station wet well to the effluent discharge sewer of the treatment plant; and
- Including all controls and associated appurtenances.

Inlet Works

- Two (2) grit channels designed for a maximum hydraulic capacity of 90 L/sec, each with dimensions of 9.15 m long x 0.97 m wide x 1.47 m deep, receiving sewage from the raw sewage pumping station through a 250 mm diameter forcemain;
- One (1) comminutor designed to handle the peak plant flow while continuously screening, cutting and shredding course solids without any build up of screenings;
- One (1) emergency bypass channel discharging into the chlorine contact chamber;

Air Blowers

- Two (2) tri-lobe positive-displacement rotary air blowers equipped with variable frequency drive (VFD), driven by a 100 HP motor with a maximum speed of 1,800 RPM, each capable of supplying 802.4 L/sec at 56.5 kPa when operated at 183 m above mean sea level;

Aeration Tank

- Two (2) circular aeration tanks with a total volume capacity of 2,190 m³ and a peak hydraulic capacity of 90 L/sec, providing a detention time of 15 hours at a flow of 40.5 L/sec

Final Clarifier

- One (1) 15.85 m diameter circular clarifier with a hydraulic capacity of 90 L/sec, providing an effective surface area of 195 m² and a loading rate of 39.15 m³/day/m², equipped with a 1800 mm diameter influent well, rotating sludge raking arms, removable mechanical scum skimmer, continuous scum baffle, scum box, and overload alarm;

- One (1) activated sludge return air lift system with a rated capacity of 81.6 L/sec, returning sludge from the clarifier hopper to the aeration tank, and wasting of activated sludge into the sludge holding tank;
- One (1) new 3HP submersible waste sludge centrifugal pump rated at 3.7 L/sec at 6.7 m TDH, Flyght model NP-308;

Phosphorus Removal System

- One (1) 2000 L capacity chemical storage tank to be installed within the workshop in the existing Control Building, equipped with two (2) chemical metering pumps with a capacity range of 0.24 m³/day to 0.71 m³/day to dose a coagulant at the sewage pump discharge pipe; and
- Including all associated controls and appurtenances.

Control Building

- A control building including an equipment room, blower room, washroom, shower, workshop, lunchroom, office and laboratory;
- Including all the necessary appurtenances and controls;

Sludge Handling Facility

- One (1) 510 m³ sludge holding tank equipped with air diffusers, decanting facility, and sludge pumps;

Outfall Sewer

- One (1) 550 mm diameter approximately 190 m long polyethylene pipe, equipped with a diffuser and discharging into the Blind River;

Standby Power

- One (1) diesel generator set with a minimum continuous rating of 175 kW and 218.75 kVA complete on board fuel storage;

Effluent Disinfection Facility (to be decommissioned)

- One (1) 250 L capacity sodium hypochlorite solution container equipped with two (2) chemical feed metering pumps (one duty, one standby), each rated at a maximum capacity of 5.6 L/hr at a maximum back pressure of 1000 kPa dispensing sodium hypochlorite solution into the chlorine contact chamber

- One (1) 80 m³ capacity chlorine contact chamber providing a detention time of fifteen (15) minutes at a maximum flow of 90 L/sec;

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 the submitted supporting documents listed in Schedule A.

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;

"Annual Average Daily Flow" means the cumulative total sewage flow to the sewage works during a calendar year divided by the number of days during which sewage was flowing to the sewage works that year;

"BOD₅" (also known as TBOD₅) means five day biochemical oxygen demand measured in an unfiltered sample and includes carbonaceous and nitrogenous oxygen demand;

"Bypass" means diversion of sewage around one or more unit processes within the Sewage Treatment Plant with the diverted sewage flows being returned to the Sewage Treatment Plant treatment train upstream of the Final Effluent sampling point, and discharging to the environment through the Sewage Treatment Plant outfall;

"CBOD₅" means five day carbonaceous (nitrification inhibited) biochemical oxygen demand measured in an unfiltered sample;

"Single Sample Concentration" means the concentration of a contaminant in the effluent discharged on any 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.1 of the EPA;

"*E. coli*" refers to the thermally tolerant forms of *Escherichia* that can survive at 44.5 degrees Celsius;

"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;

"Event" means an action or occurrence, at a given location within the Works that causes a Bypass or Overflow. An Event ends when there is no recurrence of a Bypass or Overflow in the 12-hour period following the last Bypass or Overflow. Two Events are separated by at least 12 hours during which there has been no recurrence of a Bypass or Overflow. An Overflow Event and a Bypass Event are two separate reportable events even when they occur concurrently;

"Final Effluent" means effluent that are discharged to the environment through the approved Final Effluent Outfall, including all Bypasses, that are required to comply with the effluent limits stipulated in the Approval for the Sewage Treatment Plant, pertaining specifically to the Final Effluent sampling point;

"Geometric Mean Density" is the nth root of the product of multiplication of the results of n number of samples over the period specified;

"Influent" means flows to the Sewage Treatment Plant through the collection system, excluding all process return flows;

"Limited Operational Flexibility" (LOF) means the minor modifications that the Owner is pre-approved to make to the Works under this Approval;

"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 Single Sample Concentrations of a contaminant in the Final Effluent sampled or measured, or both, during a calendar month;

"Monthly Average Effluent Flow" means the cumulative total Final Effluent discharged during a calendar month divided by the number of days during which Final Effluent was discharged that month;

"Overflow" means a discharge to the environment from the Works at a location other than the Sewage Treatment Plant outfall or into the outfall downstream of the Final Effluent sampling point;

"Owner" means The Corporation of the Town of Blind River and its successors and assignees;

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

"Peak Flow Rate" means the Peak Instantaneous Flow Rate, Peak Hourly Flow Rate or Peak Daily Flow Rate of sewage for which the Sewage Treatment Plant or treatment process unit or equipment is designed to handle, as appropriate;

"Previous Works" means those portions of the Works constructed under a previous approval or retroactively approved under this Approval;

"Proposed Works" means those portions of the Works to be constructed under this Approval;

"Rated Capacity" means the Annual Average Daily Flow for which the Sewage Treatment Plant is designed to handle;

"Sewage Treatment Plant" means the entire sewage treatment and effluent outfall facility;

"Substantial Completion" has the same meaning as "substantial performance" in the *Construction Lien Act* ;

"Water Supervisor" means the Water Compliance Supervisor for the Safe Drinking Water Branch (SDWB) for the Sudbury and Sault Ste. Marie offices of the Ministry; and

"Works" means the sewage works described in the Owner's application, and this Approval, and includes Proposed Works, Previous Works and modifications made under Limited Operational Flexibility.

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) Except as otherwise provided by these terms and conditions, the Owner shall design, construct, operate and maintain the Works in accordance with 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, and where there is a conflict between the documents in the Schedule A, the document bearing the most recent date shall prevail.

(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.

(5) This Approval is granted based upon a review of the Works in the context of its effect on the environment, its process performance and general principles of wastewater engineering. The review did not include a consideration of the architectural, mechanical, electrical or structural components and minor details of the Works except to the extent necessary to review the Works.

(6) This Approval only pertains to approval required under OWRA S.53 and does not include Air, Noise, Waste, Renewable Energy and other media approvals that may be required under other sections of the EPA or the Green Energy Act or other Federal or Provincial regulations for any portion of the Works.

2. **CHANGE OF OWNER**

(1) The Owner shall notify the Water Supervisor 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 or operating authority;
- b. change of Owner or operating authority or both, including address of new Owner or operating authority, or both;
- 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 *Business Names Act, R.S.O. 1990, c. B.17* ; and
- d. change of name of the corporation where the Owner or operating authority is or at any time becomes a corporation, and a copy of the "Initial Return" or "Notice of Change" filed under the *Corporations Information Act, R.S.O. 1990, c. C.39* , shall be included in the notification to the Water Supervisor.

(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 Water Supervisor.

(3) The Owner shall ensure that all communications made pursuant to this condition refer to the number at the top of this Approval.

3. **COMPLETION OF THE PROPOSED WORKS**

(1) All Proposed Works in this Approval shall be completed and commissioned within five (5) years of issuance of this Approval.

(2) One (1) week prior to the start up of the operation of the Proposed Works, the Owner shall notify the Water Supervisor (in writing) of the pending start up date.

(3) Upon the Substantial Completion of the Proposed Works, the Owner shall prepare a statement, certified by a Professional Engineer, that the Proposed Works are constructed in accordance with this Approval, and shall make the written statement to notify the Water Supervisor.

(4) Within one (1) year of the Substantial Completion of the Proposed Works, a set of as-built drawings showing the Works "as constructed" shall be prepared or updated. These drawings 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) In the event that completion and commissioning of any portion of the Proposed Works is anticipated to be delayed beyond five (5) years of issuance of this Approval, the Owner shall submit an application of extension to the specified period, at least twelve (12) month prior to the end of the period. The application for extension shall include the reason(s) for the delay, whether there is any design change(s) and a review whether the standards applicable at the time of Approval of the Works are still applicable at the time of request for extension, to ensure the ongoing protection of the environment.

4. BYPASSES

(1) Any Bypass is prohibited, except:

- a. in an emergency situation when a structural, mechanical or electrical failure that causes a temporary reduction in the capacity of the Sewage Treatment Plant or in unexpected and/or unavoidable circumstance(s) that are likely to result in personal injury, loss of life, health hazard, basement flooding, severe property damage, equipment damage or treatment process upset;
- b. where the Bypass is a direct and unavoidable result of a planned maintenance procedure or other circumstance(s), the Owner having notified the Water Supervisor at least fifteen (15) days prior to the occurrence of Bypass, including an assessment of the potential adverse effects on the environment and the anticipated duration of the Bypass and the mitigation measures, and the Water Supervisor has given written consent of the Bypass;

(2) For any Bypass Event, the Owner shall forthwith notify the Spills Action Centre (SAC) and the local Medical Officer of Health. This notice shall include, at a minimum, the following information for each Event:

- a. the date and time of the Bypass;
- b. the treatment process(es) Bypassed and the status of the disinfection;
- c. the reason(s) for the Bypass.

(3) After each Bypass Event, the Owner shall collect and record the following information:

- a. the duration of the Bypass Event;
- b. the measured or the estimated volume of Bypass.

(4) For any Bypass Event, the Owner shall collect sample(s) of the Final Effluent, representative of the Event, at the Final Effluent Compliance sampling point, and analyze for all effluent parameters outlined in Effluent Limits condition. These samples shall be of the same type as the regular samples required in the Monitoring and Recording condition and shall follow the same protocols specified in the Monitoring and Recording condition. If the Bypass occurs within 48 hours prior to a scheduled regular sample, then the scheduled regular sample may be omitted for that one time only.

(5) The Owner shall submit a summary report of the Bypass Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15. The summary reports shall be in an electronic format, which shall contain, at a minimum, the types of information set out in Subsections (2), (3) and (4) for Bypass(es). The Water Supervisor may modify the reporting frequency at any time in writing.

5. **OVERFLOWS**

(1) Any Overflow is prohibited, except:

- a. in an emergency situation when a structural, mechanical or electrical failure that causes a temporary reduction in the capacity of the Sewage Treatment Plant or in unexpected and/or unavoidable circumstance(s) that are likely to result in personal injury, loss of life, health hazard, basement flooding, severe property damage, equipment damage or treatment process upset;
- b. where the Overflow is a direct and unavoidable result of a planned maintenance procedure or other circumstance(s), the Owner having notified the Water Supervisor at least fifteen (15) days prior to the occurrence of the Overflow, including an assessment of the potential adverse effects on the environment and the anticipated duration of the Overflow and the mitigation measures, and the Water Supervisor has given written consent of the Overflow.

(2) For any Overflow Event, the Owner shall forthwith notify the Spills Action Centre (SAC) and the local Medical Officer of Health. This notice shall include, at a minimum, the following information for each Event:

- a. the date and time of the Overflow;
- b. the location of the Overflow and the receiver;
- c. the reason(s) for the Overflow; and
- d. the level of treatment the Overflow has received and disinfection status of same.

(3) After any Overflow Event, the Owner shall collect and record the following information:

- a. the duration of the Overflow Event;
- b. the monitored or estimated volume of the Overflow; and
- c. the impact of Overflow on the receiver.

(4) For each Overflow Event, the Owner shall collect samples, representative of the Event, consisting of a minimum of two (2) grab samples of the Overflow, one at the beginning of the Event and one approximately near the end of the Event, and every 4 hours for the duration of the Event, and have them analyzed for effluent parameters outlined in Effluent Limits condition. For raw sewage and primary treatment system Overflow, BOD5 shall be monitored instead of CBOD5 and monitoring of *E. coli* is

not required.

(5) The Owner shall submit a summary report of the Overflow Event(s) to the Water Supervisor on a quarterly basis, no later than each of the following dates for each calendar year: February 15, May 15, August 15, and November 15. The summary report shall be in an electronic format, which shall contain, at a minimum; the types of information set out in Subsections (2), (3) and (4) for Overflow(s). The Water Supervisor may modify the reporting frequency at any time in writing.

6. DESIGN OBJECTIVES

(1) The Owner shall use best efforts to design, construct and operate the Works such that the design objectives of the materials named below as effluent parameters are achieved in the Final Effluent from the Sewage Treatment Plant.

- a. Effluent parameters with concentration objectives:

Table 1 - Effluent Concentration Objectives

Effluent Parameter	Concentration Objective (milligrams per litre unless otherwise indicated)
CBOD5	15.0
Total Suspended Solids	15.0
Total Phosphorus	0.7

- b. pH within the range of 6.5 - 8.5, inclusive, at all times;
- c. The Final Effluent is essentially free of floating and settable 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.

(2) The Owner shall use best efforts to operate the Works within the Rated Capacity of the Sewage Treatment Plant.

(3) The Owner shall make an assessment of the issues and recommendation of pro-active actions if any is required under the following situations and include in the annual report to the Water Supervisor:

- a. when any of the design objectives is not achieved consistently;
- b. when the Annual Average Daily Flow reaches 80% of the Rated Capacity

7. COMPLIANCE LIMITS

(1) The Owner shall operate and maintain the Works such that the compliance limits of the materials named below as effluent parameters are not exceeded in the Final Effluent from the Sewage Treatment

Plant.

- a. Effluent parameters with concentration and loading limits:

Table 2 - Effluent Concentration Limits

Effluent Parameter	Monthly Average Concentration (milligrams per litre unless otherwise indicated)
Column 1	Column 2
CBOD5	25.0
Total Suspended Solids	25.0
Total Phosphorus	1.0

- b. pH within the range of 6.5 - 8.5, inclusive, as measured in any Individual Sample;
- c. The Final Effluent is essentially free of floating and settable 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.
- d. The effluent is continuously disinfected so that the monthly Geometric Mean Density of *E. coli* does not exceed 200 organisms per 100 millilitres of Final Effluent.

8. OPERATION AND MAINTENANCE

(1) The Owner shall exercise due diligence in ensuring 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 operator 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 the operations manual for the Works within six (6) months of Substantial Completion of the Proposed 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 the Works;
- 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 Water Supervisor; and

f. procedures for receiving, responding and recording public complaints, including recording any followup 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 provide for the overall operation of the Works with an operator who holds a licence that is applicable to that type of facility and that is of the same class as or higher than the class of the facility in accordance with Ontario Regulation 129/04.

9. MONITORING AND RECORDING

The Owner shall, upon commencement of operation of the 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) For the purposes of this condition, the following definitions apply:

- a. Weekly means once each week;
- b. Monthly means once every month;

(3) Samples shall be collected at the following sampling points, at the frequency specified, by means of the specified sample type and analyzed for each parameter listed and all results recorded:

Table 3 - Influent Monitoring - Sampling Point: Plant Influent Channel

Parameters	Sample Type*	Frequency
BOD5	Composite	Monthly
Total Suspended Solids	Composite	Monthly
Total Phosphorus	Composite	Monthly
Total Kjeldahl Nitrogen	Composite	Monthly

**Table 4 - Effluent Monitoring -
Sampling Point: Outlet of the UV Contact Chamber**

Parameters	Sample Type*	Frequency
CBOD5	Composite	Weekly
Total Suspended Solids	Composite	Weekly
Total Phosphorus	Composite	Weekly
Total Ammonia Nitrogen	Composite	Weekly
E. Coli	Grab	Weekly
pH	Grab	Weekly
Temperature	Grab	Weekly

**Table 5 - Effluent Monitoring -
Sampling Point: From manhole on the shore of the Blind River**

Parameters	Sample Type*	Frequency
Total Chlorine Residual	Grab	Weekly (during the bypass of the chlorine contact chamber)

*Definitions and preparation requirements for each sample type are included in document (4)(b) referenced below.

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

- 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 Ontario.ca/Environment, as amended from time to time by more recently published editions;
- c. the publication "Standard Methods for the Examination of Water and Wastewater", as amended from time to time by more recently published editions;

(5) The monitoring frequencies specified in subsection (3) in respect to any parameter are minimum requirements which may be modified by the Water Supervisor in writing from time to time under the following situations:

- a. after two (2) years of monitoring in accordance with this Condition and all results achieve the Design Objectives;

(6) The Owner shall install and maintain flow monitoring equipment, 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 to totalize and record the quantity of the flow at hourly or daily intervals, for either of the

following sewage streams;

- a. Influent flow to the Sewage Treatment Plant by continuous flow measuring devices and instrumentations; or
- b. Final Effluent discharged from the Sewage Treatment Plant by continuous flow measuring devices and instrumentations, or in lieu of an actual installation of equipment, adopt the flow measurements of the Influent for the purpose of estimating Final Effluent flows if the Influent and Final Effluent streams are considered not significantly different in flow rates and quantities;

(7) 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.

(8) 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. The concentration of un-ionized ammonia shall be calculated using the total ammonia concentration, pH and temperature using the methodology stipulated in "Ontario's Provincial Water Quality Objectives" dated July 1994, as amended, for ammonia (un-ionized).

(9) Upon start up and successful commissioning of the UV disinfection system, Table 5 above is no longer applicable.

10. LIMITED OPERATIONAL FLEXIBILITY (MINOR MODIFICATIONS TO THE WORKS)

(1) The Owner may make modifications to the Works in accordance with the Terms and Conditions of this Approval and subject to the Ministry's "Limited Operational Flexibility Criteria for Modifications to Sewage Works", included under Schedule B of this Approval, as amended.

(2) Sewage works proposed under Limited Operational Flexibility shall adhere to the design guidelines contained within the Ministry's publication "Design Guidelines for Sewage Works 2008", as amended.

(3) The Owner shall ensure at all times, that the Works, related equipment and appurtenances which are installed or used to achieve compliance are operated in accordance with all Terms and Conditions of this Approval.

(4) For greater certainty, the following are not permitted as part of Limited Operational Flexibility:

- a. Modifications to the Works that result in an increase of the Rated Capacity of the Works;
- b. Modifications to the Works that may adversely affect the approved effluent quality criteria or the location of the discharge/outfall;
- c. Modifications to the treatment process technology of the Works, or modifications that involve construction of new reactors (tanks) or alter the treatment train process design;

- d. Modifications to the Works approved under s.9 of the EPA, and
- e. Modifications to the Works pursuant to an order issued by the Ministry.

(5) Implementation of Limited Operational Flexibility is not intended to be used for piecemeal measures that result in major alterations or expansions.

(6) If the implementation of Limited Operational Flexibility requires changes to be made to the Emergency Response, Spill Reporting and Contingency Plan, the Owner shall, as deemed necessary in consultation with the Water Supervisor, provide a revised copy of this plan for approval to the local fire services authority prior to implementing Limited Operational Flexibility.

(7) For greater certainty, any modification made under the Limited Operational Flexibility may only be carried out after other legal obligations have been complied with, including those arising from the *Environmental Protection Act, Niagara Escarpment Planning and Development Act, Oak Ridges Moraine Conservation Act, Lake Simcoe Protection Act and Greenbelt Act*.

(8) Prior to implementing Limited Operational Flexibility, the Owner shall complete a Notice of Modifications describing any proposed modifications to the Works and submit it to the Water Supervisor.

11. REPORTING

(1) The Owner shall report to the Water Supervisor orally as soon as possible any non-compliance with the effluent criteria, and in writing within seven (7) days of non-compliance.

(2) 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 Water Supervisor 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.

(3) The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.

(4) The Owner shall prepare performance reports on an annual basis and submit to the Water Supervisor by March 31 of the calendar year following the period being reported upon. 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 Final Effluent limits outlined in Compliance Limits condition, 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 description of efforts made and results achieved in meeting the Design Objectives Condition;
- g. 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;
- h. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- i. a summary of all By-pass, spill or abnormal discharge events;
- j. a copy of all Notice of Modifications submitted to the Water Supervisor as a result of Schedule B, Section 1, with a status report on the implementation of each modification;
- k. a report summarizing all modifications completed as a result of Schedule B, Section 3; and
- l. any other information the Water Supervisor requires from time to time.

(5) The Owner shall, within thirty (30) calendar days of issuance of this Approval, submit a Municipal and Local Services Board Wastewater System Profile Information Form, and shall resubmit the updated document every time a notification is provided to the Water Supervisor in compliance with requirements of change of ownership under this Approval. A copy of the latest version of the form shall be obtained from the Water Supervisor.

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

1. Condition 1 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. 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. It also 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 included to indicate that Bypass is prohibited, except in circumstances where the failure to Bypass could result in greater injury to the public interest than the Bypass itself. The notification and documentation requirements allow the Ministry to take action in an informed manner and will ensure the Owner is aware of the extent and frequency of Bypass Events.
5. Condition 5 is included to indicate that Overflow of untreated or partially treated sewage to the receiver is prohibited, except in circumstances where the failure to Overflow could result in greater injury to the public interest than the Overflow itself. The notification and documentation requirements allow the Ministry to take action in an informed manner and will ensure the Owner is aware of the extent and frequency of Overflow Events.
6. Condition 6 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 of Condition 7 are exceeded.
7. Condition 7 is imposed to ensure that the effluent discharged from the Works to the environment meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver and to protect water quality, fish and other aquatic life in the receiving water body.
8. Condition 8 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 Works.
9. Condition 9 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.
10. Condition 10 is included to ensure that the Works are operated in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider. These Conditions are also included to ensure that a Professional Engineer has reviewed the proposed modifications and attests that the modifications are in line with that of Limited Operational Flexibility, and provide assurance that the proposed modifications comply with the Ministry's requirements

stipulated in the Terms and Conditions of this Approval, MOE policies, guidelines, and industry engineering standards and best management practices.

11. Condition 11 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.

Schedule A

Schedule "A" forms part of this Approval and contains a list of supporting documentation / information received, reviewed and relied upon in the issuance of this approval.

1. Environmental Compliance Approval Application for Municipal Sewage Works submitted by Orlan Euale, P.Eng. and signed by Kathryn Scott, Clerk Administrator for the Town of Blind River, dated April 21, 2017
2. Proposal for Aeration System Retrofit at Blind River Sewage Treatment Plant prepared by Napier Reid Ltd dated April 20, 2017
3. Design Report for Aerobic Treatment at Blind River Sewage Treatment Plant prepared by EDI dated March 31, 2017
4. Proposal for Trojan UV 3000 plus for Blind River Sewage Treatment Plant prepared by Trojan dated April 21, 2017
5. Stamped Engineering Plans and Drawings for Aeration and Disinfection upgrades dated April 2017
6. Email thread from Mark Edward of Kresin Engineering dated June 12, 2017

Schedule B

Limited Operational Flexibility Criteria for Modifications to Municipal Sewage Works

1. The modifications to sewage works approved under an Environmental Compliance Approval (Approval) that are permitted under the Limited Operational Flexibility (LOF), are outlined below and are subject to the LOF conditions in the Approval, and require the submission of the Notice of Modifications. If there is a conflict between the sewage works listed below and the Terms and Conditions in the Approval, the Terms and Conditions in the Approval shall take precedence.

1.1 Sewage Pumping Stations

- a. Alter pumping capacity by adding or replacing equipment where new equipment is located within an existing sewage treatment plant site or an existing sewage pumping station site, provided that the modifications do not result in an increase of the sewage treatment plant Rated Capacity and the existing flow process and/or treatment train are maintained, as applicable.
- b. Force main relining and replacement with similar pipe size where the nominal diameter is not greater than 1,200 mm.

1.2 Sewage Treatment Process

- a. Installing additional chemical dosage equipment including replacing with alternative chemicals for pH adjustment or coagulants (non-toxic polymers) provided that there are no modifications of treatment processes or other modifications that may alter the intent of operations and may have negative impacts on the effluent quantity and quality.
- b. Expanding the buffer zone between a sanitary sewage lagoon facility or land treatment area and adjacent uses provided that the buffer zone is entirely on the proponent's land.
- c. Optimizing existing sanitary sewage lagoons with the purpose to increase efficiency of treatment operations provided that existing sewage treatment plant rated capacity is not exceeded and where no land acquisition is required.
- d. Optimizing existing sewage treatment plant equipment with the purpose to increase the efficiency of the existing treatment operations, provided that there are no modifications to the works that result in an increase of the approved Rated Capacity, and may have adverse effects to the effluent quality or location of the discharge.
- e. Replacement, refurbishment of previously approved equipment in whole or in part with Equivalent Equipment, like-for-like of different make and model, provided that the firm capacity, reliability, performance standard, level of quality and redundancy of the group of equipment is kept the same or exceeded. For clarity purposes, the following equipment can

be considered under this provision: pumps, screens, grit separators, blowers, aeration equipment, sludge thickeners, dewatering equipment, UV systems, chlorine contact equipment, bio-disks, and sludge digester systems.

1.3 Sewage Treatment Plant Outfall

- a. Replacement of discharge pipe with similar pipe size or diffusers provided that the outfall location is not changed.

1.4 Sanitary Sewers

- a. Pipe relining and replacement with similar pipe size within the Sewage Treatment Plant site, where the nominal diameter is not greater than 1,200 mm.

1.5 Pilot Systems

- a. Installation of pilot systems for new or existing technologies provided that:
 - i. any effluent from the pilot system is discharged to the inlet of the sewage treatment plant or hauled off-site for proper disposal,
 - ii. any effluent from the pilot system discharged to the inlet of the sewage treatment plant or sewage conveyance system does not significantly alter the composition/concentration of the influent sewage to be treated in the downstream process; and that it does not add any inhibiting substances to the downstream process, and
 - iii. the pilot system's duration does not exceed a maximum of two years; and a report with results is submitted to the Director and Water Supervisor three months after completion of the pilot project.
2. Sewage works that are exempt from section 53 of the OWRA by O. Reg. 525/98 continue to be exempt and are not required to follow the notification process under this Limited Operational Flexibility.
3. Normal or emergency operational modifications, such as repairs, reconstructions, or other improvements that are part of maintenance activities, including cleaning, renovations to existing approved sewage works equipment, provided that the modification is made with Equivalent Equipment, are considered pre-approved.
4. The modifications noted in section (3) above are not required to follow the notification protocols under Limited Operational Flexibility, provided that the number of pieces and description of the equipment as described in the Approval does not change.



Notice of Modification to Sewage Works

RETAIN COPY OF COMPLETED FORM AS PART OF THE ECA AND SEND A COPY TO THE WATER SUPERVISOR (FOR MUNICIPAL) OR DISTRICT MANAGER (FOR NON-MUNICIPAL SYSTEMS)

Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility (Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)

ECA Number	Issuance Date (mm/dd/yy)	Notice number (if applicable)
ECA Owner	Municipality	

Part 2: Description of the modifications as part of the Limited Operational Flexibility (A. Each a detailed description of the sewage works)

Description shall include:

1. A detailed description of the modifications and/or operations to the sewage works (e.g. sewage works component, location, size, equipment type, model, material, process name, etc.)
2. Confirmation that the anticipated environmental effects are negligible
3. List of updated versions of, or amendments to, all relevant technical documents that are affected by the modifications as applicable. (e.g. submission of documentation is not required, but the listing of updated documents is (e.g. site drawings, emergency plan, etc.)

Part 3 – Declaration by Professional Engineer

I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:

1. Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario;
2. Has been designed in accordance with the Limited Operational Flexibility as described in the ECA;
3. Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry best management practices, and demonstrating ongoing compliance with s. 53 of the Ontario Water Resources Act, and other applicable regulations.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate.

Name (Print)	P.O. License Number
Signature	Date (mm/dd/yy)
Name of Employer	

Part 4 – Declaration by Owner

I hereby declare that:

1. I am authorized by the Owner to complete this Declaration;
2. The Owner consents to the modification; and
3. This modifications to the sewage works are proposed in accordance with the Limited Operational Flexibility as described in the ECA.
4. The Owner has fulfilled all applicable requirements of the Environmental Assessment Act.

I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate.

Name of Owner Representative (Print)	Owner representative's title (Print)
Owner Representative's Signature	Date (mm/dd/yy)

(AB Form December 3, 2013)

**Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s).
9397-A92PVQ issued on May 18, 2016**

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. 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 Director appointed for the purposes of Part II.1 of the Environmental Protection Act
Ministry of the Environment and Climate Change
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

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

DATED AT TORONTO this 19th day of June, 2017



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

WS/

c: Area Manager, MOECC Sault Ste. Marie

c: DWMD Supervisor, MOECC Sudbury

Orlan Euale, P.Eng., Kresin Engineering Corporation

