

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 5691-CJGK54
Issue Date: February 29, 2024

Algoma Steel Inc.
105 West Street
Sault Ste. Marie, Ontario
P6A 7B4

Site Location: Algoma Steel Inc.
105 West Street
City of Sault Ste. Marie, District of Algoma
P6A 7B4

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:

the establishment of Proposed Works, amendment and continued use of the Existing Works for the collection, transmission, treatment and disposal of industrial sewage works at Algoma Steel, as part of new proposed Electric Arc Furnace (EAF) at Algoma Plant (as part of the planned replacement of the current Basic Oxygen Furnace (BOF) Steelmaking with EAF) for the treatment of industrial sewage, disposal of process effluent and non-contact cooling water to the St. Mary's River, the East Davignon Creek and Algoma Boat Slip via the Sewage Treatment Plants and Final Effluent disposal facilities, and Bennett Creek Diversion via stormwater management treatment facility, listed below and described as follows:

DESIGN CAPACITY OF SEWAGE WORKS

1. Main Water Filtration Plant (0700) (Main Water Filtration Plant is also known as Effluent Filtration Plant or Primary Wastewater Treatment Plant or Main Wastewater Treatment Plant)*

Design Capacity with All Treatment Trains in Operation	Prior to Completion of Construction of All Proposed Works	Upon Completion of Construction of All Proposed Works
Rated Capacity	340,690 m ³ /d*	340,690 m ³ /d*
*Sources of Raw sewage; Surface water runoff, Cokemaking, Ironmaking, Slabcaster, Direct Strip Production Complex (DSPC), Cold Mill, Plate and Strip Mill, Boiler House, and Cogeneration Facility		

2. Biological Treatment Plant**

Design Capacity with All Treatment Trains in Operation	Prior to Completion of Construction of All Proposed Works	Upon Completion of Construction of All Proposed Works
Rated Capacity	1,135.2 m ³ /d (at 4,200 Tons/day Production Capacity)	No Flow (when EAF Transition is complete)
**Sources of Raw sewage; Coke Oven By-Products Plant		

3. Lake Superior Power Inc. (2434-8L3JQ5) Site

Design Capacity with All Treatment Trains in Operation	Prior to Completion of Construction of All Proposed Works	Upon Completion of Construction of All Proposed Works
Rated Capacity	363 m ³ /d	363 m ³ /d

NON CONTACT COOLING WATER DISCHARGE LOCATIONS AND FLOW RATES

MISA Discharge Location	Daily Average Flow Rate (m³/d)	Source of Cooling Water Discharge	Receiver
Cold Mill 20 inch Sewer (MISA 1500)	3,400	Cold Mill Hydraulic and Lubricating System	East Davignon Creek
#2 BOSP Cooling Tower (MISA 1000)	60,000	Steelmaking process	East Davignon Creek
Blast Furnace 30 inch sewer (MISA 0300)	17,000	Blast Furnace cooling tower blowdown	Algoma Bloat Slip
Blast Furnace 60 inch sewer (MISA 0200)	100,000	Blast Furnace Turbo Blowers	Algoma Boat Slip
Boiler House (MISA 0800) (Summer only from May to November)	60,000	Boiler House at Gas Cooling	St. Marys River
Cold Mill 24 inch sewer (MISA 0500)	4,500	Coldmill Annealing Process	East Davignon Creek

PROPOSED WORKS

1. Proposed Works A

Proposed Works for a new Electric Arc Furnace (EAF)

One Proposed Cooling Water Collection system designed for collection, treatment and transmission of cooling tower blow down water, servicing newly proposed Electric Arc Furnace 1 (EAF1), Electric Arc Furnace 2 (EAF2). Flume Treatment Plant 1 (FTP1), Flume Treatment Plant 2(FTP2) and Capillary, Auxiliary (CAP/AUX) industrial processes, generating wastewater/Blowdown cooling water during Phase 1 and Phase 2 of the project, given as per the table below, and discharging to the existing **Main Water Filtration Plant (MWFP)**, through Existing underground sewers that outlet to the Main Water Filtration Plant at the existing 36” #6 Blast Furnace (BF) sewer that connects to the 36” Plate Mill, which ultimately flows into the 72” x 72” Structural Bay Trunk sewer (SBT) discharging into Algoma’s existing Main Water Filtration Plant, complete with an overflow to the mill floor and no connections to a sewer; the WTP collection tank overflow discharge is equivalent to the make-up water supply of 200 m³/h (880.5 gpm) for the duration of the overflow event;

- Two (2) submersible centrifugal pumps, located at the backwash collection system, having a flow rate of 100 cubic metres per hour, having a Head of 12.2 metre (40 feet) having a motor rating of 30 kilowatts discharging blowdown cooling water from the backwash collection system at the EAF WTP to the 36” #6 BF sewer which connects to the 36” Plate Mill sewer, ultimately outletting in to the 72” x 72” structural bay trunk sewer (SBT) that discharges into Algoma’s Main Water Filtration Plant;

Proposed Cooling Tower Blowdown to Main Wastewater Treatment Plant	Phase 1 - Jan 1, 2024 - December 31, 2026	Phase 2 - Jan 1, 2024 - December 31, 2029
Average Daily Flow Rate	720 m ³ /hr (17,280 m ³ /d)	1200 m ³ /hr (28,800 m ³ /d)
Maximum Daily Flow Rate	2520 m ³ /d	28,800 m ³ /d

2. Proposed Works B (Previously Approved)

Stormwater Management and Treatment Facility for the Algoma Material Storage and Reprocessing Site

establishment of wastewater infrastructure Works for the approximately 101.93 ha portion of the Algoma Material Storage and Reprocessing Site, located at 105 West Street in the City of Sault Ste. Marie, including impacted storm water and groundwater treatment facilities for the collection, treatment and disposal of contact stormwater run-off and groundwater seepage from contributing areas within the site, discharging into the Bennett Creek prior to ultimately discharging to the St. Mary River, consisting of the following:

Perimeter Ditch

- an existing trapezoidal-shaped ditch (Baseline Road Ditch, BRD), from stormwater run-off and groundwater seepage from contributing areas within the site, discharging into the Bennett Creek prior to ultimately discharging to the St. Mary River, designed to capture runoff and shallow groundwater drainage from the north side of MSRS, having side slopes of 3:1, approximately 900 m length, 3.6 - 6.7 m top width and minimum 1.0 m depth, with a longitudinal slope of 0.13 - 0.2%, equipped with two (2) culvert crossings (an existing 450 mm diameter CSP culvert and a new 525 mm diameter concrete culvert), conveying stormwater runoff for storm events up to and including the 100-year storm event from approximately 101.93 ha of drainage area (including 33.0 ha of vegetated area and 71.0 ha of operational area (impacted area)), discharging via a riparian diversion swale into the flocculation pond;

Diversion Swale

- a riparian diversion swale, allowing baseflow conditions (average flow of 25 L/s, with a maximum baseflow of 76 L/s) and large storm events (maximum 25 mm storm event) to discharge to the flocculation pond, equipped with a weir structure to allow excess stormwater during larger precipitation events (greater than 25 mm) to bypass the treatment system and continue draining downstream towards the St. Mary River;

Flocculation Pond

- one (1) flocculation pond with a total permanent pool volume of 470 m³ and total active storage of approximately 2,335 m³, discharging through three (3) 675 mm diameter culverts into the settling pond as described below;
 - one (1) 5 hp surface mixer;
 - one (1) portable chemical dosing system to be used on an "as required" basis, consisting of a chemical storage drum equipped with portable pumps, hoses, and nozzle for polymer injection to the lagoon contents via the discharge line of a portable recirculation pump for mixing;

Settling Pond

- one (1) settling pond with a total permanent pool volume of 2,650 m³ and total active storage of approximately 7,530 m³, with clarified water overflowing a weir to the micropond as described below;
- one (1) micropond with a 1.5 m deep permanent pool and a volume of 95 m³, equipped with pH probe installed upstream of the carbon dioxide addition location and continuously monitoring the pH of the pond effluent, discharging through one (1) reversed slope 300 mm diameter culverts into the existing downstream portion of the Baseline Road ditch ultimately to St Mary River via Bennett Creek;
- one (1) carbon dioxide addition system to be used on an "as required" basis (based on flow and pH monitoring data), consisting of a liquid carbon storage tank, compressor, vapourizer, pressure relief valve and associated equipment, 2.5 hp pump, pump control panel, and associated piping, dosing CO₂ to the micropond to reduce the pH of the water (from approximately 10.5 to 8.5) and providing super-saturated CO₂ solution to pond effluent;

EXISTING WORKS

1. Bar and Strip Lagoon (MISA 0100)

existing Bar and Strip Lagoon, discharging to St. Marys River through a flow control manifold, to St. Mary's River (MISA Control Point 0100), with an elevation of approximately 61 cm that ensures prevention of any back flow from St. Mary's River in to the Bar and Strip lagoon; the Bar and Strip Lagoon is complete with one (1) carbon dioxide flow control manifold outfall, liquid carbon dioxide storage tank, complete with flow measurement equipment, pH probe/controller, carbon dioxide diffuser assembly, gas monitor;

Steelmaking Gas Cleaning Plant (GCP)

existing sewage works for the treatment and disposal of approximately 35,000 cubic metres per day of wastewater generated from the primary gas cleaning system of the Basic Oxygen Furnace which is processed through the Bar and Strip Lagoon and then discharged to the St. Mary's River, located at 105 West Street, Sault Ste. Marie, Ontario, consisting of the following:

- one (1) 54 tonnes capacity liquid carbon dioxide storage tank;
- one (1) carbon dioxide flow control manifold;

- one (1) electrical control panel complete with pH probe and controller;
- one (1) carbon dioxide diffuser assembly with support system;
- one (1) carbon dioxide gas monitor;

Clarifier

one existing clarifier (Thickener), having a circular shape with approximate 30.5 metre diameter, and depth approximately 7.1 metre, having a volume of 1.5 million gallons, receiving the polymer added effluent from the primary gas cleaning system of the basic oxygen furnace, and outletting to a three chambered basin;

Settling Basin

an existing three chambered settling basin, approximately 1.5 metre deep, having approximate total volume of 1300 m³, and discharging to Bar and Strip Pond;

2. Main Water Filtration Plant MWFP (0700)

One Lake Superior Power Main Plant (also known as **Effluent Filtration Plant** and **Primary Wastewater Treatment Plant**) comprising oil skimmers, primary settling basin, sand filters, polymer addition, filter backwash, and a final clarifier, designed with a Maximum Daily Flow Rate capacity of 340,690 m³/day, for the collection, transmission, treatment, and disposal of raw industrial wastewater from the following industrial processes/units, and discharging the final treated effluent to St. Marys River through a clear well;

Surface water runoff and basement sumps
Cokemaking,
Ironmaking,
Slabcaster,
Direct Strip Production Complex (DSPC),
Cold Mill,
Plate and Strip Mill,
Boiler House, and
Cogeneration Facility
EAF under current amendment

The Filtration Plant comprises the following;

- one (1) 21.3 metres diameter Primary Sedimentation Basin with a total volume of 2026 cubic metres and a total effective surface area of 358 square metres, complete with solids removal facilities from the basin and the sand filter beds, and oil skimmer, receiving the effluent from the above noted industrial processes/units, and discharging the effluent to the wet well by gravity;
- six (6) horizontal centrifugal Primary Pumps, two (2) rated at 852 litres per second, located in the wet well, pump the effluent into the 20 mono-media deep bed sand filters;
- twenty (20) mono-media deep Sand Filter Beds each with an effective surface area of 46.5 square metres for a total filter area of 930 m², equipped with 1.8 metre deep of silica sand media with an effective size of 1.8 millimetre and a uniformity coefficient of not greater than 1.35, five (5) layers of reverse graded gravel support media totalling 457 millimetres deep, including nozzleless filter underdrain system and air distribution piping, discharging the effluent to the Clear Well;

- three (3) positive displacement filter backwash air blowers each rated at 0.71 standard cubic metre per second at a discharge pressure of 62 kilopascals, including inlet filter/silencers, interconnecting piping, associated valves and appurtenances;
- one (1) mudwell equipped with one (1) 3.7 kilowatt mixer;
- one (1) backwash thickener with a total effective surface area of 357 square metres, equipped with oil skimmer and mechanical solids removal system, including polymer mixing and feeding equipment, discharging the effluent to the Clear Well;
- two (2) air-operated diaphragm thickener underfloor pumps each rated at 6.3 litres per second at a total dynamic head of 13.7 metres, including interconnecting piping, associated valves and appurtenances, complete with one (1) Sludge Storage Tank equipped with one 3.7 Kilowatt mixer, and two (2) air-operated belt press filter pumps each rated at 6.3 litres per second at a total dynamic head of 13.7 metres, complete with two (2) belt filter presses with pre-dewatering drums, including polymer mixing and feeding equipment, discharging the supernatant to the Primary Sedimentation Basin, including instrumentation, electrical equipment and controls, waste oil: storage and pumping facilities, belt filter cake storage facilities. associated equipment, interconnecting piping and appurtenances;
- one (1) underflow slurry pump, 7.62 cm x 7.62 cm, having a pump rate of 6.31 litres per second (100 US gallons per minute) at 38.84 m (114.3 feet) Head, replaced the existing underflow slurry pump, transferring slurry from underflow of the backwash thickener to the existing sludge storage tank; and
- one (1) waste oil piping having 38.1 millimetre diameter, intercepted the existing piping currently transmitting waste oil collected by skimmer to the waste oil pit, and rerouting the waste oil to the waste oil collection tank;
- one (1) waste oil collection tank, measuring 3.858 metre long and 1.270 metre in diameter, having a storage capacity of 4,629 litres, storing collected waste oil to be transferred later to the existing oil processing tank for reprocessing;
- one (1) slurry pump having 5 HP, 1,800 rpm, 7.62 cm, 41 litres per second (650 US gallons per minute), installed in the waste oil pit, transferring accumulated scum and sludge from the backwash thickener into the existing sludge storage tank;

Direct Strip Water Treatment Backwash Effluent System (Direct Strip WTP)

One Direct Strip Water Treatment Backwash Effluent System (Direct Strip WTP) comprising of concrete collection sumps, designed with a Maximum Daily Flow Rate capacity of approximately 95 cubic metres (25,000 US gallons) during each water wash cycle over a fifteen minute period, for the collection, transmission, treatment, and disposal of raw industrial wastewater from the Direct Strip WTP, and discharging the effluent to Main Water Filtration Plant, comprising;

- one (1) concrete collection sump, measuring 9.0 metres x 4.0 metres x 3 metres, located outside, adjacent to the west side of the WTP building and north of the scale pit, receiving intermittent backwash water from the Direct Strip WTP of approximately 95 cubic metres (25,000 US gallons) during each water wash cycle over a fifteen minute period, equipped with two (2) pumps and a 100 millimetre diameter water flushing line for flushing the sump

and the pipe line before any extended shutdown, and having level control by pumping the collected backwash water via a 203 millimetre (8 inch) line which is heat traced and insulated, to the existing 1,219 millimetre (48 inch) sewer which discharges to the Main Water Filtration Plant, and having the overflow directed to the scale pit; and,

- two (2) sump pumps, having one operating and one standby, each having a flow capacity of 6,000 litres per minute, discharge pressure of 41 metres of water column and a 100 HP motor, operating on level control with high level alarm, discharging the effluent to Main Water Filtration Plant;

3. COLD MILL 24 INCH SEWER (MISA 0500)

One 61 cm sewer, approximately 165 m long from the Cold Mill Annealing process, discharging to the Davignon Creek, conveying Cold Mill annealing process non-contact cooling water, discharging into the Davignon Creek at an average flow of 4,500 m³/day, with a maximum measured flow rate of 4,655 m³/day;

4. COLD MILL 20 INCH SEWER (MISA 1500)

One 51 cm sewer from hydraulic and lubricating system heat exchangers on the north side of the Cold Mill building, discharging through the western portion of the building approximately 170 m west into the Davignon Creek. The sewer at the lagoon discharge point is a 2.7 m by 0.10 m slit, conveying Cold Mill hydraulic and lubricating system heat exchangers non-contact cooling water received, discharging into the Davignon Creek, through a lagoon with an average flow of 3,400 m³/day;

5. #2 BOSP COOLING TOWER (MISA 1000) (Basic Oxygen Steel Production (BOSP))

One 152 cm sewer from the BOSP gas cleaning plant flows approximately 260 meters northwest (overhead) to the #2 BOSP cooling tower which discharges out of a 152 cm pipe into the Davignon Creek, at an average flow of 60,000 m³/day;

6. BLAST FURNACE 30 INCH SEWER (MISA 0300) (Outfall to be eliminated in Phase 2 Proposed Works)

One 76 cm sewer approximately 260 m long from western portion of the #7 BF to Algoma's boat slip (St. Mary's River), conveying Blast Furnace Cooling Tower (Blast Furnace tuyere and stack cooling) non-contact cooling water received from the Blast Furnace Cooling Tower, discharging into the Algoma Boat Slip, at an average flow of 17,000 m³/day, and maximum measured flow rate of 17,971 m³/day;

7. BLAST FURNACE 60 INCH SEWER (MISA 0200) (Outfall to be eliminated in Phase 2 Proposed Works)

One 152 cm sewer approximately 600 m long from of the #7 BF Turbo Blower sump discharging into Algoma's boat slip, conveying Blast Furnace non-contact cooling water, discharging into the Algoma Boat Slip, at an average flow of 100,000 m³/day, and maximum measured flow rate of 104,913 m³/day;

8. BOILER HOUSE (MISA 800) (Discharge to be eliminated in Phase 2 Proposed Works)

One 61 cm sewer from the Boilerhouse to the St. Mary's River, operated seasonally (from May 01 to November 30), conveying Boiler House non-contact cooling, discharging into the St. Mary's River, with a maximum measured flow rate of 59,079 m³/day;

9. BIOLOGICAL TREATMENT PLANT (serving Coke Oven By-Products Plant)

One existing fluidized bed Biological Treatment Plant, designed for a maximum flow capacity of 1135 m³/day, and 47.3 m³/hour at 4200 ton/day Coke Production capacity, for the treatment of wastewater from the Coke Oven By-Products Plant, and discharging to the Main Water Filtration Plant, comprising;

- One (1) 30 metre diameter #7 Emergency Storage Tank collecting emergency storage volume from the Cokemaking and By-Products operation with a total storage capacity of 9,000 cubic metres, including two (2) discharge pumps each rated at 9.5 litres per second and interconnecting piping and valves, discharging the collected effluent to the Biological Treatment Plant and then discharging to the sewer for treatment through the Main Water Filtration Plant, equipped with a vacuum pumper truck connection and an above ground pipeline that connects the tank directly to the By-Products feed/return liquor system, complete with a Benzene Emission Control (BEC) system.
- two (2) raw wastewater pumps each rated at 15.8 litres per second located in the South Oil/Water Separator, discharging the effluent to the Biological Treatment Plant that conveys the effluent to the Main Water Filtration Plant;
- one (1) 15 meters diameter by 12.19 metres high Equalization Tank with a total effective storage capacity of 2,066 cubic metres, discharging the effluent to Main Water Filtration Plant;
- two (2) wastewater feed pumps each rated at 13.1 litres per second located in the Bioplant, discharging the effluent to Main Water Filtration Plant;
- two (2) dilution water pumps each rated at 26.3 litres per second located in the North Oil/Water Separator, discharging the effluent to Main Water Filtration Plant;
- three (3) recirculation pumps each rated at 491 litres per second located in the Bioplant, discharging the effluent to Main Water Filtration Plant;
- two (2) oxygenators injecting oxygen to the recirculated water and discharging in to biological reactor tanks through the down flow distribution system;
- two (2) 9150 mm diameter by 8530 mm high fluidized sand bed biological reactors, receiving recirculated water from the oxygenators, each bed equipped with a biomass separation pump, hydrocyclone and biomass pump; discharging the treated effluent through the reactor tank weirs, complete with recirculation pump and ultimately discharging into a sewer that discharges to Main Water Filtration Plant;
- one (1) 1500 millimetres diameter by 2430 millimetres high phosphoric acid storage tank with containment walls, including two (2) feed pump each rated at 4 litres per hour, capable of continuous pumping operation or on demand;
- one (1) 3000 millimetres diameter by 4800 millimetres high caustic soda storage tank with containment walls, including three (3) feed pumps each rated at 90 litres per hour; and,

10. Coal Tar Collection System (Former Domtar site)

One Coal Tar collection system, collecting Coal Tar wastewater effluent from the former Domtar operation, immediately west of Algoma's boat slip and south of Pot Hauler Road, and discharging up to 130 cubic metres per day of coal tar contaminated groundwater, generated from the coal tar collection system located at the Domtar site, the effluent being collected using vacuum trucks and processed in the by-products facility prior to entering the sewer system and ultimately in the Main Water Filtration Plant;

11. Lake Superior Power Inc.

the establishment of sewage works for the collection, transmission, treatment and disposal of up to 363 m³/day of process wastewater and up to 1,448.1 Litres/sec of once through cooling water, serving the 95 Megawatt Lake Superior Power cogeneration plant located long the north shore of the St. Mary's River in Sault Ste. Marie, Ontario, consisting of the following:

Lake Superior Power Main Plant

- One (1) lined concrete neutralization tank with a total effective storage capacity of 212 m³, equipped with four (4) submerged 1.5 kilowatt mixers and level controllers, discharging to the outfall sewer via two (2) sump pumps each rated at 6.3 Litres/sec;
- Steam turbine and condenser area collection system consisting of floor drains, piping and one (1) collection sump (Collection Sump #1) with a total effective storage volume of 2.3 m³, equipped with one (1) sump pump rated at 3.2 Litres/sec, discharging to the oil/water separator;
- One (1) coalescing type oil/water separator with a rated hydraulic capacity of 3.2 Litres/sec, a coalescing area of 93.4 square metres and an oil reservoir capacity of 95 Litres, discharging to Collection Sump #2;
- One (1) collection sump (Collection Sump #2) with a total effective storage volume of 2.3 m³, equipped with one (1) sump pump rated at 3.2 m³ Litres/sec, discharging to the clear backwash holding tank;
- One (1) clear backwash holding tank with a total effective storage capacity of 126 m³, discharging to the outfall sewer via two (2) effluent pumps each rated at 5.1 Litres/sec;
- Associated cooling water discharge piping extending from the steam turbine condenser, gas turbine generators, air ejector condensers and water/glycol heat exchangers to the outfall sewer;
- At dehalogenation treatment system consisting of a chemical metering pump with feed controller, a flow sensor and chemical feed tank;
- One (1) 1,050 mm diameter outfall sewer extending into the north power canal of the St. Mary's River;
- One (1) brine squeeze system consisting of a 6.435 Litre capacity FRP tank, one flowmeter and a 45 Litre/minute capacity brine pump for regeneration of anion units of the non-exchange system;

All in accordance with the Schedule A.

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

"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;

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

"Blowdown Water" means recirculating water that is discharged from a cooling water system for the purpose of controlling the level of water in the cooling water system or for the purpose of discharging from the cooling water system materials contained in the cooling water system to reduce the further build-up of contaminants which would impair the operation of the system;

"Bypass" means diversion of sewage around one or more treatment processes, excluding Preliminary Treatment System, 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(s) and discharged via the approved effluent disposal facilities;

"Cooling Water Effluent" means water and associated material that is used in an industrial process for the purpose of removing heat and that has not, by design, come into contact with Process Materials, but does not include Blowdown Water;

"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;

"District Manager" means the District Manager of the Sudbury District Office;

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

"Waste Loading" means a loading expressed in kilograms per day and calculated by multiplying the concentration of a parameter in a sample by the total volume of effluent discharged from the Works during the day in which the sample is taken;

"Licensed Engineering Practitioner" means a person who holds a licence, limited licence or temporary licence under the *Professional Engineers Act*, R.S.O. 1990, c. P.28;

"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 Concentration of a contaminant in the effluent sampled or measured, or both, during a calendar month;

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

"Monthly Average Loading" means the value obtained by multiplying the Monthly Average Concentration of a contaminant by the Monthly Average Daily Flow over the same month;

"Owner" means Algoma Steel Inc., and its successors and assignees;

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

"Maximum Daily Flow Rate" or "Peak Daily Flow Rate" means the Maximum Daily Flow Rate of wastewater from the Works or treatment process unit or equipment for which it is designed to generate;

"Plant" means the industrial facility and the developed property, waste disposal sites and wastewater treatment facilities associated with it;

"Process Effluent Monitoring Stream" means a stream on which a sampling point is monitored under Schedule C;

"Proposed Works" means the sewage works described in the Owner's application, this Approval, to the extent approved by this Approval;

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

"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;

"Works" means the sewage works described in the Owner's application, and this Approval, and includes Existing and Proposed Works

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

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

1. The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.
2. Except as otherwise provided by these conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Approval, and the application for approval of the Works.
3. Where there is a conflict between a provision of any document in the schedule referred to in this Approval and the conditions of this Approval, the Conditions in this Approval shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.
4. Where there is a conflict between the documents listed in the Schedule 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.

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 Agency;
 - b. change of Operating Agency, including address of new Operating Agency;
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. CONSTRUCTION OF PROPOSED WORKS / RECORD DRAWINGS

1. All Proposed Works in this Approval shall be constructed and installed and must commence operation within five (5) years of issuance of this Approval for Proposed Works A, and within three (3) years of the Proposed Works B, 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).
2. One (1) week prior to the commencement of the operation of the Proposed Works, the Owner shall notify the District Manager (in writing) of the pending start-up date.
3. Upon the construction of the Works, the Owner shall prepare a statement, certified by a Licensed Engineering Practitioner, that the Works are constructed in accordance with this Approval, and upon request, shall make the written statement available for inspection by Ministry personnel.
4. Within **one (1) year** of the construction of each of the **Proposed Works A and B**, a set of as-built drawings showing the Works “as constructed” shall be prepared. 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. The Owner shall ensure that the treatment technologies are installed in accordance with the manufacturer's installation manual.

4. EFFLUENT OBJECTIVES FOR STORMWATER MANAGEMENT AND TREATMENT FACILITY FOR THE ALGOMA MATERIAL STORAGE AND REPROCESSING SITE

1. The Owner shall use best efforts to design, construct and operate the Works with the objective that the concentrations of the materials listed as effluent parameters in the Effluent Objectives Table in **Schedule B** are not exceeded in the effluent from the Works.

5. EFFLUENT LIMITS

1. The Owner shall design, construct and operate the Works such that the concentrations of the materials listed as effluent parameters in the effluent limits tables in **Schedule C** are not exceeded in the effluent from the respective Works.
2. For the purposes of determining compliance with and enforcing subsection (1):
 - a. For Main Water Filtration Plant and Bar and Strip Lagoon, non-compliance with respect to a Single Sample Concentration Limit is deemed to have occurred when any single sample analyzed for a parameter named in Column 1 of the Effluent Limits Table listed in **Schedule C** is greater than the corresponding maximum Limit set out in Column 2 of the respective Effluent Limits Table listed in **Schedule C**;
 - b. For Plant Process Effluent, non-compliance with respect to a Plant Monthly Average Concentration Limit is deemed to have occurred when the arithmetic mean concentration of all samples taken in a month, analyzed for a parameter named in Column 1 of the respective Effluent Limits Table listed in **Schedule C** is greater than the corresponding average concentration set out in Column 4 of the Effluent Limits Table listed in **Schedule C**;
 - c. For Plant Process Effluent, non-compliance with respect to an Plant Daily Average Loading Limit is deemed to have occurred when any individual loading for a parameter named in Column 1 of the respective Effluent Limits Table listed in **Schedule C** is greater than the corresponding maximum Waste Loading set out in Column 2 of the Effluent Limits Table listed in **Schedule C**;
 - d. For Plant Process Effluent, non-compliance with respect to a Monthly Average Loading Limit is deemed to have occurred when the arithmetic mean of all individual effluent loadings taken in a month for a parameter named in the respective Effluent Limits Table listed in **Schedule C** is greater than the corresponding average Waste Loading set out in Column 3 of the Effluent Limits Table listed in **Schedule C**;
 - e. For Lake Superior Power Main Plant, non-compliance with respect to Concentration Limit is deemed to have occurred when the Monthly Average Concentration of any parameter named in Column 1 of the respective Effluent Limits Table listed in **Schedule C** is greater than the corresponding monthly average concentration set out in Column 2 of the Effluent Limits Table listed in **Schedule C**;
 - f. For Settling Pond at Algoma Material Storage and Processing site, non-compliance with respect to Concentration Limit is deemed to have occurred when any single sample analyzed for a parameter named in Column 1 of the Effluent Limits Table listed in **Schedule C** is greater than the corresponding maximum Limit set out in Column 2 of the respective Effluent Limits Table listed in **Schedule C**;

- g. non-compliance with respect to pH is deemed to have occurred when any single measurement is outside of the indicated range.
- 3. The Owner shall operate and maintain the Works such that the effluent from the Works with acute lethality sampling points referenced in **Schedule D** is non-acutely lethal to Rainbow Trout and Daphnia Magna by ensuring that each Rainbow Trout acute lethality test and each Daphnia Magna acute lethality test performed on any grab sample of effluent shall result in mortality for no more than 50% of the test organism in 100 percent effluent.
- 4. The Owner shall ensure that effluent flow to the Main Water Filtration Plant does not exceed 340,690 m³/day.

6. EFFLUENT - VISUAL OBSERVATIONS

- 1. Notwithstanding any other condition in this Approval, the Owner shall ensure that each of the effluent stream from the Works 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, sheen or foam on the receiving waters

7. OPERATIONS MANUAL

- 1. The Owner shall prepare/update the operations manual for the Works within six (6) months of completion of construction of the Proposed Works, that includes, but not necessarily limited to, the following information:
 - a. operating procedures for the Works under Normal Operating Conditions;
 - 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. operating procedures for the Works to handle situations outside Normal Operating Conditions and emergency situations such as a structural, mechanical or electrical failure, or an unforeseen flow condition;
 - f. 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 Spills Action Centre (SAC) and District Manager;
 - g. procedures for receiving, responding and recording public complaints, including recording any followup actions taken.

2. 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 Works. Upon request, the Owner shall make the manual available for inspection and copying by Ministry personnel.

8. 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 laboratory facilities, adequate staffing and training, including training in all procedures and other requirements of this Approval and the OWRA and relevant regulations made under the OWRA, process controls and alarms and the use of process chemicals and other substances used in the Works.
2. The Owner shall carry out on a regular basis specific maintenance requirements and scheduling to ensure proper operation of the works.
3. The Owner shall use best effort to immediately identify and clean-up any spills associated with operation of the works.
4. The Owner shall, upon identification of a process material loss, take immediate action to prevent the further occurrence of such loss.
5. In furtherance of, but without limiting the generality of, the obligation imposed by subsection (1), the Owner shall ensure that equipment and material for the containment, clean-up and disposal of process materials are kept on hand and in good repair for immediate use in the event of:
 - a. loss of process material from the herein approved works
 - b. a spill within the meaning of Part X of the *Environmental Protection Act* ,or
 - c. identification of an abnormal amount of process material in any of the sumps or containment areas
6. The Owner shall not permit effluent that would ordinarily flow past a sampling point maintained under this Approval to be discharged from the Owner's Plant without flowing past that sampling point, regardless of whether it would be convenient to do so because of a maintenance operation, a breakdown in equipment or any scheduled or unscheduled event.
7. Changes in the discharge from Cooling Tower #2 (MISA 1000) and 30 inch Sewer (0300) and 60 inch Sewer (0200) locations
 - a. The Owner shall not discharge any effluent from the Cooling Tower #2 (MISA 1000) location, 30 inch Sewer (0300) and 60 inch Sewer (0200) discharge locations after December 31, 2030.

8. Changes in the Bar and Strip Lagoon (MISA 0100) Discharge

- a. The Owner shall, by December 31, 2025, submit to the District Manager for approval, a report recommending updated effluent discharge criteria for Bar and Strip Lagoon (MISA 0100). If recommended by the District Manager, the Owner shall submit an application for amendment of this Approval, to include the updated effluent discharge criteria.

9. Changes in the Main Wastewater Treatment Plant (MISA 0700)

1. The Owner shall, by December 31, 2029, submit to the District Manager for approval a report recommending updated effluent discharge criteria for the Main Wastewater Treatment Plant (MISA 0700) locations. If recommended by the District Manager, the Owner shall submit an application for amendment of this Approval, to include the updated effluent discharge criteria.

9. EFFLUENT 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 D** 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.
 - i. definitions for frequency;
 - ii. Daily means once every day;
 - iii. Weekly means once every week;
 - iv. Monthly means once every month;
 - v. Quarterly means once every three months;
 - vi. Semi-annually means once every six months;
 - vii. Annually means once every year;
2. Samples shall be collected and analyzed at the sampling point(s), at the sampling frequencies and using the sample type specified for each parameter listed in the effluent monitoring table included in **Schedule D**.
3. 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 in accordance with the applicable procedures below;

- a. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater Version 2.0" (January 2016), PIBS 2724e02, as amended;
 - b. the publication "Standard Methods for the Examination of Water and Wastewater", as amended; and
 - c. 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.
 - d. the Environment Canada publications "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout" (EPS 1/RM/13 Second Edition - December 2000) and "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Daphnia Magna" (EPS 1/RM/14 Second Edition - December 2000), "Biological Test Method: Test of Reproduction and Survival Using the Cladoceran Ceriodaphnia dubia" (EPS 1/RM/21 Second Edition February 2007), and "Biological Test Method: Test of Larval Growth and Survival Using Fathead Minnows" (EPS 1/RM/22 2nd Edition February 2011), as amended. as amended, subject to the following:
 - i. the use of pH stabilization in the determination of acute lethality of Final Effluent to Rainbow Trout in accordance with the Environment Canada publication "Procedure for pH Stabilization during the Testing of Acute Lethality of Wastewater Effluent to Rainbow Trout (EPS 1/RM/50)" (2008), as amended, is permitted only if:
 - a. all the three criteria stipulated in the Environment Canada EPS 1/RM/50 are met; and
 - b. the Final Effluent is not discharged to a receiver in which the Final Effluent contributes more than 50% of the total flow in the receiving water, unless the District Manager, having reviewed additional information submitted regarding the Final Effluent and the receiving water approves on the use of RM50 on a site-specific basis.
4. The temperature and pH of the effluent from the Works shall be determined in the field at the time of sampling for total ammonia. 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).
 5. For **Sewage B** (Stormwater Management and Treatment Facility for the Algoma Material Storage and Reprocessing Site), the Owner shall measure, calculate and record the discharge rate from the Sewage Works on a daily basis during discharging period.
 6. **Monitoring - Acute Lethality Testing - Rainbow Trout**
 1. Each rainbow trout acute lethality test required by this Approval shall be carried out as a single concentration test using hundred (100) per cent effluent.

2. On one day in each month, the Discharger shall collect and immediately pick up a grab sample at the Process Effluent Sampling Point listed in **Schedule D** and shall perform a rainbow trout acute lethality test on each sample.
3. There shall be an interval of at least fifteen (15) days between successive pick up days at the Plant under subsection (2) of this condition.
4. All samples picked up under subsection (2) of this condition in a month shall be picked up on the same day in the month.
5. Where the Discharger has performed tests under subsection (2) of this condition for twelve (12) consecutive months on samples collected from the same sampling point and the mortality of the rainbow trout in each test did not exceed fifty (50) per cent, the Discharger is relieved of the obligations under subsection (2) of this condition relating to the sampling point and shall instead collect and immediately pick up a grab sample at the sampling point on one day in each Quarter and perform a rainbow trout acute lethality test on each sample.
6. Samples picked up at the Plant under subsection (5) of this condition shall be picked up on a day on which samples are picked up at the Plant under subsection (2) of this condition.
7. There shall be an interval of at least forty five (45) days between successive pick up days at the Plant under subsection (5) of this condition.
8. All samples picked up under subsection (5) of this condition in a Quarter shall be picked up on the same day in the Quarter.
9. If a rainbow trout acute lethality test performed under subsection (5) of this condition on any sample from a sampling point results in mortality of more than fifty (50) per cent of the test rainbow trout, subsections (6) to (8) of this condition cease to apply in relation to samples from that sampling point, and the Discharger shall instead comply with the requirements of subsection (2) of this condition relating to the sampling point, until the tests performed under subsection (2) of this condition on all samples collected from the sampling point for a further twelve (12) consecutive months result in mortality for no more than fifty (50) per cent of the rainbow trout for each test.
10. The Discharger shall notify the Director in writing of any change in the frequency of acute lethality testing under this Approval at the Discharger's Plant, within thirty (30) days after the day on which the change begins.

7. Monitoring - Acute Lethality Testing - Daphnia Magna

1. Conditions 10(6) apply with necessary modifications to Daphnia Magna acute lethality tests and, for the purpose, a reference to rainbow trout shall be deemed to be a reference to Daphnia Magna.

2. The Discharger shall pick up each set of samples required to be collected from a sampling point at the Discharger's Plant under this condition on a day on which the Discharger collects a sample from the sampling point under Condition 10(6), to the extent possible having regard to the frequency of monitoring required at the sampling point under this condition and Condition 10(6).

8. Monitoring - Chronic Toxicity Testing - Fathead Minnow and Ceriodaphnia Dubia

1. On one day in each Semi-annual Period, the Discharger shall collect and immediately pick up a grab sample from each sampling point listed in **Schedule D** for the Discharger's Plant, and shall perform a seven (7)-day fathead minnow growth inhibition test and a seven (7)-day Ceriodaphnia dubia reproduction inhibition and survivability test on each sample.
2. There shall be an interval of at least ninety (90) days between successive pick up days at the Plant under subsection (1) of this condition.
3. All samples picked up under subsection (1) of this condition in a Semi-annual Period shall be picked up on the same day in the Semi-annual Period.
4. The Discharger need not collect a sample from a sampling point in accordance with subsection (1) of this condition until twelve (12) consecutive monthly rainbow trout acute lethality tests and twelve (12) consecutive monthly Daphnia Magna acute lethality tests performed on samples collected at the sampling point at the Discharger's Plant result in mortality for no more than fifty (50) per cent of the test organisms in hundred (100) per cent effluent.

10. CALCULATION OF LOADINGS — GENERAL

1. For the purposes of performing a calculation under this Approval, the Owner shall use the actual analytical result obtained by the laboratory.
2. Despite subsection (1) of this condition, where the actual analytical result is less than one-tenth of the analytical method detection limit set out in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time, the Owner shall use the value zero for the purpose of performing a calculation under this Approval.
3. The Owner shall ensure that each calculation of the process effluent loading required by this Approval is performed as soon as reasonably possible after the analytical result on which the calculation is based becomes available to the Owner.

11. CALCULATION OF LOADINGS — PROCESS EFFLUENT

1. The Owner shall calculate, in kilograms, a daily process effluent stream loading for each parameter identified with the loading limit in the **Schedule C**, for each day on which a sample is collected under this Approval.

2. When calculating a daily stream loading under subsection (1) of this condition, the Owner shall multiply, with the necessary adjustment of units to yield a result in kilograms, the analytical result obtained from the sample for the parameter by the daily volume of effluent, as determined under **Condition 14**, for the stream for the day.
3. The Owner shall calculate, in kilograms, a daily process effluent plant Loading for each parameter identified with the loading limit in the Schedule C, for each day for which the Owner is required to calculate a daily process effluent stream loading for the parameter under subsection (1) of this condition.
4. For the purposes of subsection (3) of this condition, a daily process effluent plant Loading for a parameter for a day is the sum, in kilograms, of the daily process effluent stream loadings for the parameter calculated under subsection (1) of this condition for the day.
5. The Owner shall calculate, in kilograms, a monthly average process effluent stream Loading for each parameter identified with the loading limit in the Schedule C, for each month in which a sample is collected under this Approval more than once from the Process Effluent Monitoring Stream at the Owner's Plant for analysis for the parameter.
6. For the purposes of subsection (5) of this condition, a monthly average process effluent stream Loading for a parameter for a month is the arithmetic mean of the daily process effluent stream loadings for the parameter calculated under subsection (1) of this condition for the month.

12. CALCULATION OF LOADINGS — COOLING WATER

1. The Owner shall calculate, in kilograms, a daily cooling water effluent Stream Loading for each parameter in each of the Designated Cooling Water Effluent Stream Tables included in the **Schedule D** of this Approval, for each day on which a sample is collected under this Approval from the stream for analysis for the parameter.
2. When calculating a daily stream loading under subsection (1) of this condition, the Owner shall multiply, with the necessary adjustment of units to yield a result in kilograms, the analytical result obtained from the sample for the parameter by the daily volume of effluent, as determined under **Condition 14**, for the stream for the day.
3. The Owner shall calculate, in kilograms, a daily Cooling Water Effluent plant loading for each parameter for each day for which the Owner is required to calculate a daily cooling water effluent stream loading for the parameter under subsection (1) of this condition.
4. For the purposes of subsection (3) of this condition, a daily Cooling Water Effluent plant loading for a parameter for a day is the sum, in kilograms, of the daily cooling water effluent stream loadings for the parameter calculated under subsection (1) of this condition for the day.

5. The Owner shall calculate, in kilograms, a monthly average Cooling Water Effluent stream loading for each parameter for each month in which a sample is collected under this Approval more than once from a Cooling Water Effluent monitoring stream at the Owner's Plant for analysis for the parameter.
6. For the purposes of subsection (5) of this condition, a monthly average Cooling Water Effluent stream loading for a parameter for a month is the arithmetic mean of the daily cooling water effluent stream loadings for the parameter calculated under subsection (1) of this condition for the month.
7. The Owner shall calculate, in kilograms, a monthly average Cooling Water Effluent plant loading for each parameter for each month in which a sample is collected under this Approval more than once from a Cooling Water Effluent monitoring stream at the Owner's Plant for analysis for the parameter.
8. For the purposes of subsection (8) of this condition, a monthly average Cooling Water Effluent plant loading for a parameter for a month is the arithmetic mean of the daily cooling water effluent Plant loadings for the parameter calculated under subsection (3) of this condition for the month.

13. EFFLUENT FLOW MEASUREMENT

1. The Owner shall determine in cubic metres a daily volume of effluent for each of the Process Effluent Monitoring Stream at the Owner's Plant for each day on which a sample is collected under this Approval from the stream, by integration of continuous flow rate measurements.
2. Despite subsection (1) of this condition, where the Process Effluent Monitoring Stream discharges on an intermittent basis, the daily volumes for the stream may be determined either by integration of continuous flowrate measurements or by the summation of the individual intermittent volume measurements.
3. The Owner shall use flow measurement methods that allow the daily volumes for Process Effluent Monitoring Streams to be determined to an accuracy of within plus or minus fifteen (15) per cent.
4. The Owner shall determine by calibration or confirm by means of a certified report by a Licensed Engineering Professional that each flow measurement method used under subsections (2) and (3) of this condition meets the accuracy requirements of subsection (4) of this condition;
5. Where the Owner uses a new flow measurement method or alters an existing flow measurement method, the Owner shall determine by calibration or confirm by means of a certified report of a Licensed Engineering Professional that each new or altered flow measurement method meets the accuracy requirements of subsection (3) of this condition, as the case may be, within two (2) weeks after the day on which the new or altered method or system is used.
6. The Owner shall develop and implement a maintenance schedule and a calibration schedule for each flow measurement system installed at the Owner's Plant and shall maintain each flow measurement system according to good operating practices.

7. The Owner shall use reasonable efforts to set up each flow measurement system used for the purposes of this condition in a way that permits inspection by a provincial officer.

14. BYPASSES

1. Any Bypass is prohibited, except:
 - a. an emergency Bypass when a structural, mechanical or electrical failure causes a temporary reduction in the capacity of a treatment process or when an unforeseen flow condition exceeds the design capacity of a treatment process that is likely to result in personal injury, loss of life, health hazard, basement flooding, severe property damage, equipment damage or treatment process upset, if a portion of the flow is not bypassed.
2. Notwithstanding the exceptions given in Paragraph 1, the Operating Agency shall undertake everything practicable to maximize the flow through the downstream treatment process(es) prior to bypassing.
3. At the beginning of a Bypass Event, the Owner shall immediately notify the District Manager. This notice shall include, at a minimum, the following information:
 - a. the type of the Bypass as indicated in Paragraph 1 and the reason(s) for the Bypass;
 - b. the date and time of the beginning of the Bypass;
 - c. the treatment process(es) gone through prior to the Bypass and the treatment process(es) bypassed;
 - d. the effort(s) done to maximize the flow through the downstream treatment process(es) and the reason(s) why the Bypass was not avoided.
4. Upon confirmation of the end of a Bypass Event, the Owner shall immediately notify the District Manager. This notice shall This include, at a minimum, the following information:
 - a. the date and time of the end of the Bypass;
 - b. the estimated or measured volume of Bypass.
5. For any Bypass Event, the Owner shall collect daily sample(s) of the Final Effluent, inclusive of the Event and analyze for all effluent parameters outlined in Compliance Limits condition that require composite samples, following the same protocol specified in the Monitoring and Recording condition for the regular samples. The sample(s) shall be in addition to the regular Final Effluent samples required under the Monitoring and Recording condition. If the Event occurs on a scheduled monitoring day, the regular sampling requirements prevail. If representative sample for the effluent parameter(s) that require grab sample cannot be obtained, they shall be collected after the Event at the earliest time when situation returns to normal.

15. REPORTING

1. One week prior to the start up of the operation of the Works of the Proposed Works, the Owner shall notify the District Manager (in writing) of the pending start up date.
2. Elimination of the Cokemaking, Ironmaking, and BOF Steelmaking processes
 - a. The Owner shall notify the District Manager, in writing within 30 days, upon the decommissioning of any process that will result in changes to operations causing a reduction to influent flows to the Main Water Filtration Plant or any other discharge location.
3. The Owner shall report to the District Manager or designate, any exceedance of any parameter specified in Conditions 5 or 6 orally, as soon as reasonably possible, and in writing within seven (7) days of the exceedance.
4. In addition to the obligations under Part X of the EPA and O. Reg. 675/98 (Classification and Exemption of Spills and Reporting of Discharges) made under the EPA, the Owner shall, within fifteen (15) days of the occurrence of any reportable spill as provided in Part X of the EPA and O. Reg. 675/98, 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 a schedule of implementation.
5. 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 Effluent Limits outlined in the Effluent 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 Effluent Objectives of Condition 4.

g. any other information the District Manager requires from time to time.

16. REPORTING - ALGOMA MATERIAL STORAGE AND REPROCESSING SITE

1. The Owner shall report to the District Manager orally as soon as possible any non-compliance with the effluent criteria, and in writing within seven (7) days of non-compliance.
2. The Owner shall, upon request, make all manuals, plans, records, data, procedures and supporting documentation available to Ministry staff.
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 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, both inflow and outflow, with a comparison to the Final Effluent limits and Objectives outlined in Schedule B and C, including an overview of the success and adequacy of the Works;
 - b. a surface water monitoring report discussing the effect of Baseline Road Ditch discharge on Bennett Creek Diversion water quality for all parameters monitored at those locations, including at least the following minimum information:
 - c. tabulation and interpretation, including comparison to Ontario Provincial Water Quality Objectives and Canadian Water Quality Guidelines, of current and historical surface water monitoring data for Baseline Road Ditch (SW5) and Bennett Creek Diversion (SW3 upstream station and SW9 downstream station) collected as part of the site-wide surface water quality monitoring program for the Algoma Material Storage and Reprocessing Site;
 - d. descriptive statistics for each sampling location and electronic file (excel) of the data;
 - e. graphs illustrating current and historical trends with time of key water quality parameters;
 - f. a site plan(s) illustrating significant surface water features such as streams, ponds, seeps, ditches, collection and treatment facilities, and roadways, as well as all of the water sampling locations; and

- g. Universal Transverse Mercator (UTM) coordinates for all water sampling locations, North American Datum (1983).
- h. a description of any operating problems encountered and corrective actions taken;
- i. a summary of all inspection, maintenance and clean-out carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the Works;
- j. a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- k. a summary of the calibration and maintenance carried out on all effluent monitoring equipment;
- l. 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;
- m. a summary of any complaints received during the reporting period and any steps taken to address the complaints;
- n. a summary of all spill or abnormal discharge events; and,
- o. a summary of any Notifications and Contingency Plan undertaken during the reporting period and a discussion regarding their adequacy.

17. STORM WATER CONTROL STUDY

1. The Owner shall complete a storm water control study in respect of the Owner's Plant, in accordance with the requirements of the Ministry publication entitled "Protocol for Conducting a Storm Water Control Study" dated August, 1994 as amended from time to time.
2. The Owner need not comply with subsection (1) of this condition in respect of the Owner's Plant if,
 - a. the Plant meets the exemption criteria set out in the Ministry publication entitled "Protocol for Conducting a Storm Water Control Study" dated August, 1994 as amended from time to time; and
 - b. the Owner had notified the Director in writing, before April 12, 1996, that the Plant meets the exemption criteria referred to in paragraph (a).
3. The Owner shall ensure that a copy of each study completed under this condition is available to Ministry staff at the Owner's Plant on request during the Plant's normal office hours.

18. RECORD KEEPING

1. The Owner shall keep records of all analytical results obtained under Conditions 12, and 14, all calculations performed under Conditions 7 and 8 and all determinations and calculations made or performed under Conditions 18 and 19.
2. The Owner shall keep records of all sampling and analytical procedures used in meeting the requirements of Condition 2, including, for each sample, the date, the time of Pick Up, the sampling procedures used and any incidents likely to affect the analytical results.
3. The Owner shall keep records of the results of all monitoring performed under Conditions 13, 15, 16 and 17.
4. The Owner shall keep records of all maintenance and calibration procedures performed under Condition 18.
5. The Owner shall keep records of all problems or malfunctions, including those related to sampling, analysis, acute lethality testing, chronic toxicity testing or flow measurement, that result or are likely to result in a failure to comply with a requirement of this Approval, stating the date, duration and cause of each malfunction and including a description of any remedial action taken.
6. The Owner shall keep records of any incident in which effluent that would ordinarily flow past a sampling point maintained under this Approval is discharged from the Owner's Plant without flowing past that sampling point, stating the date, duration, cause and nature of each incident.
7. The Owner shall keep records of all Process Changes and redirection of or changes in the character of effluent streams that affect the quality of effluent at any sampling point maintained under this Approval at the Owner's Plant.
8. The Owner shall keep records of the daily production, in tonnes, for the products listed in the Table titled "Process Subcategories, products and Reference Production Rate" in **Schedule D** in this Approval.
9. The Owner shall make each record required by this condition as soon as reasonably possible and shall keep each such record for a period of three (3) years.
10. The Owner shall ensure that all records kept under this condition are available to Ministry staff at the Owner's Plant on request during the Plant's normal office hours.

19. REPORTS AVAILABLE TO THE PUBLIC

1. On or before June 1 in each year, the Owner shall prepare a report relating to the previous calendar year and including,
 - a. a summary of calculated plant loadings;
 - b. a summary of the results of concentrations determined under this Approval;
 - c. a summary of the results of monitoring and calculations performed under this Approval;
 - d. a summary of the concentration, loading or other results that exceeded a limit or objective under this Approval;
 - e. a summary of the incidents in which effluent that would ordinarily flow past a sampling point maintained under this Approval is discharged from the Owner's Plant without flowing past that sampling point.
2. The Owner shall ensure that each report prepared under subsection (1) of this condition is available to any person at the Owner's Plant on request during the Plant's normal office hours.
3. The Owner shall provide the Director and District Manager, upon request, with a copy of any report that the Owner has prepared under subsection (1) of this condition.
4. The District Manager may specify the manner and form for submission of the report under this condition.

20. QUARTERLY REPORTS TO THE DISTRICT MANAGER

1. No later than forty (45) days after the end of each Quarter, the Owner shall submit a report to the District Manager containing information relating to the Owner's Plant throughout the Quarter as required by subsections (3) to (7) of this condition.
2. A report under this condition shall include all information included in a report given under Condition 20 during the Quarter.
3. The Owner shall report, for each month in the Quarter,
 - a. the monthly average stream loadings for each stream and the highest and lowest daily stream loadings for each stream calculated under this Approval;
 - b. the monthly average Plant loadings and the highest and lowest daily Plant loadings calculated under this Approval;

4. The Owner shall report, for each month in the Quarter,
 - a. the monthly average stream volumes for each stream and the highest and lowest daily stream volumes for each stream calculated under this Approval;
 - b. the monthly average process effluent Plant volume and the highest and lowest daily process effluent Plant volumes calculated under this Approval.
5. The Owner shall, for each sampling point maintained under this Approval at the Owner's Plant, report the number of days in each month in the Quarter on which effluent flowed past the sampling point.
6. The Owner shall report, for each month in the Quarter, the highest and lowest pH results obtained under this Approval for the Process Effluent Monitoring Stream at the Owner's Plant.
7. For this condition, unless otherwise specified by the District Manager, the Owner shall submit the data electronically using the current Ministry of Environment, Conservation and Parks Wastewater System (also known as 'MEWS'). MEWS is accessible at <https://www.mewsontario.ca/>, as updated from time to time. The submission type selected in MEWS must be set to "Detail" to complete the data submission. The Owner shall use MEWS to generate and download the Summary Discharges Reports and send those to the District Manager at Environment.SaultSteMarie@ontario.ca
8. The District Manager may specify an alternate manner and form for submission of a report under this condition from time to time.

21. REPORTS TO THE DISTRICT MANAGER – CHRONIC TOXICITY TESTING

1. A report under this condition shall be submitted to the District Manager as part of the Annual Report submitted under Condition No. 16(4).
2. A report under subsection (1) of this condition shall include a plot of percentage reduction in growth or reproduction against the logarithm of test concentration and shall include a calculation of the concentration at which a twenty (25) per cent reduction in growth or reproduction would occur.

22. CERTIFICATE OF REQUIREMENT - LAKE SUPERIOR POWER SITE

1. Pursuant to Section 103 of the *Ontario Water Resources Act*, no person having an interest in the Property, shall deal with the Property in any way without first giving a copy of this Certificate each person acquiring an interest in the Property as a result of the dealing.
2. The Owner shall:
 - i. within sixty (60) days of the date of the issuance of this Approval, submit to the Director for their review, two copies of a completed Certificate of Requirement and a registerable description of the Property; and

- ii. within ten (10) calendar days of receiving the Certificate of Requirement authorized by the *Director*, register the Certificate of Requirement in the appropriate Land Registry Office on title to the Property and submit to the Director the duplicate registered copy immediately following registration.
3. For the purposes of this condition, Property shall mean the property located at 102 West Street, Sault Ste. Marie, County of Algoma, Ontario, P6A 6W6.

23. APPROVAL SUBJECT TO FINAL DRAWINGS

1. The Owner shall not construct any portion of the Proposed Works A that enable connection and/or discharge of the proposed cooling water blow down to the existing **Main Water Filtration Plant** until detailed design drawings, and design report signed and stamped by a Licensed Engineering Practitioner for the Proposed Works A have been submitted to and approved by the Director.

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 Agency is included to ensure that the Ministry records are kept accurate and current with respect to ownership and Operating Agency 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 regarding construction of Proposed Works/record drawings 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 that prior to the commencement of construction of the portion of the Works that are approved in principle only, the Director will have the opportunity to review detailed design drawings, specifications and an engineer's report containing detailed design calculations for that portion of the Works, to determine capability to comply with the Ministry's requirements stipulated in the terms and conditions of the Approval, and 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 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. Conditions 5 and 6 are added to ensure that the Final Effluent discharged from the Works to the environment meets the Ministry's effluent quality requirements.
6. 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.
7. Condition 8 regarding operation and maintenance 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. 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. Conditions 9 to 13 are 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.
9. Condition 14 regarding Bypasses is included to indicate that Bypass is prohibited, except in circumstances where the failure to Bypass could result in greater damage to the environment 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.
10. Conditions 15, 16, 19, 20 and 21 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.
11. Condition 18 is included to require that all records are retained for a sufficient time period to adequately evaluate the long-term operation and maintenance of the Works.
12. Condition 22 is included in order to require the Owner to give notice of this Approval to potential future owners of the property before the property is dealt with.
13. Condition 23 is included due to the provisional nature of the supporting documentation submitted by the Owner with the application for approval. The Director has only approved the Works in principle, and this condition will ensure that, in accordance with the provisions of the Environmental Protection Act and Ontario Water Resources Act, prior to the commencement of construction of any part of the Works, the Director will have the opportunity to review detailed design drawings, specifications and an engineer's report containing detailed design calculations for that portion of the Works, in order to determine the Proposed Works' capability to comply with the Ministry's requirements stipulated in the terms and conditions of the Approval.

Schedule A

1. Application for Approval of Industrial and Private Water and Sewage Works dated March 30, 2022 and received on April 4, 2022.

Schedule B

EFFLUENT OBJECTIVES - SETTLING POND AT ALGOMA MATERIAL STORAGE AND REPROCESSING SITE

Effluent Objectives	
Effluent Parameter	Concentration Objective (milligrams per litre unless otherwise indicated)
Column 1	Column 2
Oil and Grease	10
Total Suspended Solids	20
Total Iron	0.30
pH of the effluent maintained between 6.5 to 8.5, inclusive, at all times	

Schedule C

FINAL EFFLUENT DISCHARGE LIMITS

Plant Process Effluent

(Bar and Strip Lagoon 0100 and Main Water Filtration Plant Effluent 0700)

**Sampling Locations: Main Water Filtration Plant (UTM 243485.48, 5156666.31 (NAD83, Zone 17N))
and Bar and Strip Lagoon (UTM 241988.42, 5156960.55 (NAD83, Zone 17N))**

Effluent Parameter	Daily Plant Loading Limit (kg/day)	Monthly Average Plant Loading Limit (kg/day)	Monthly Average Concentration Limit (mg/L)
Column 1	Column 2	Column 3	Column 4
Total Cyanide	35.4	16.4	NA
Ammonia plus Ammonium	608	219	NA
Total Lead	24.5	11.3	NA
Total Suspended Solids (TSS)	6,520	2,380	NA
Total Zinc	51.1	22.5	NA
Benzene	0.417	0.143	NA
Benzo(a)pyrene	0.481	0.166	NA
Phenolics (4AAP)	4.34	1.45	NA
Naphthalene	1.12	0.389	NA
Oil and Grease			15
Acute Toxicity to Rainbow Trout	Non-acutely Lethal (no more than 50% mortality for any Single Sample Result)		
Acute Toxicity to Daphnia Magna	Non-acutely Lethal (no more than 50% mortality for any Single Sample Result)		
pH	6 to 9.5		

Settling Pond at Algoma Material Storage and Processing site*

Effluent Parameter	Concentration Limit (milligrams per litre unless otherwise indicated)
Column 1	Column 2
Oil and Grease	15
Total Suspended Solids	30
Total Iron	0.87
pH of the effluent maintained between 6.0 to 9.5, inclusive, at all times	

*Applicable when Settling Pond at Algoma Material Storage and Processing site is constructed and operational. Sampling location to be confirmed at that time

Lake Superior Power Main Plant

Process Effluent Sampling location: UTM 267707, 5098424
(NAD83, Zone 17N)

Effluent Parameter	Concentration Limit (milligrams per litre)
Column 1	Column 2
Oil and Grease	10
Total Suspended Solids	15
pH of the effluent maintained between 6.5 to 9.0, inclusive, at all times	

Schedule D

MONITORING PROGRAM

A. Final Effluent - Bar and Strip Lagoon (MISA Control Point 0100) (UTM 241988.42, 5156960.55 (NAD83, Zone 17N))

Effluent Parameters	Monitoring Frequency	Sample Type
Column 1	Column 2	Column 3
Total Suspended Solids (TSS)	Daily	Composite
Total Zinc	Weekly	Composite
Oil and grease	Weekly	Composite
pH	Daily	on-line
Total Lead	Weekly	Composite
Acute Toxicity to Rainbow Trout	Monthly*	Grab
Acute Toxicity to Daphnia Magna	Monthly*	Grab
Chronic Toxicity to Fathead Minnow	Semi-Annually	Grab
Chronic Toxicity to Ceriodaphnia Dubia	Semi-Annually	Grab

* see Condition 9(6) and 9(7) for details

B. Main Water Filtration Plant (MISA Control Point 0700)

Monitoring Frequency for Designated Process Effluent Sampling Points: 0700 Main Water Filtration Plant Effluent (UTM 243485.48, 5156666.31 (NAD83, Zone 17N))

Effluent Parameters	Monitoring Frequency	Sample Type
Column 1	Column 2	Column 3
Total Suspended Solids (TSS)	Daily	Composite
Total Zinc	Weekly	Composite
Oil and grease	Weekly	Composite
pH	Three times every day	on-line
Total Lead	Weekly	Composite
Total Cyanide	Weekly	Composite
Ammonia plus Ammonium	Weekly	Composite
Naphthalene	Weekly	Composite
Benzene	Weekly	Composite
Phenolics (4AAP)	Weekly	Composite
Benzo(a)pyrene	Weekly	Composite
Acute Toxicity to Rainbow Trout	Monthly*	Grab
Acute Toxicity to Daphnia Magna	Monthly*	Grab
Chronic Toxicity to Fathead Minnow	Semi-Annually	Grab
Chronic Toxicity to Ceriodaphnia Dubia	Semi-Annually	Grab

* see Condition 9(6) and 9(7) for details

MONITORING PROGRAM - SETTLING POND AT ALGOMA MATERIAL STORAGE AND REPROCESSING SITE

Influent and Effluent Monitoring

Sampling location: inlet of the flocculation pond and outlet of settling pond and Reaction Chamber***

Effluent Parameters	Monitoring Frequency	Sample Type
Column 1	Column 2	Column 3
Total Suspended Solids (TSS)	Monthly*	Grab
Total Iron	Monthly*	Grab
Oil and grease	Monthly*	Grab
pH**	Monthly*	on-line

* If an effluent objective is exceeded at the outlet, change the monitoring frequency to weekly until 6 consecutive samples below objectives. UTM coordinates of the sampling location to be provided upon construction of these works

** Continuous pH monitoring with pH probe shall also be conducted at the Reaction Chamber

***UTM Coordinates to be provided upon completion of the construction

MONITORING PROGRAM - MAIN PLANT AND FUEL OIL CATCHMENT AREA AT LAKE SUPERIOR POWER SITE

Streams to Monitor - (Sample Points)	
Stream A (UTM 701763 E, 5154624 N (NAD 83, Zone 16N))	The untreated raw water obtained from the St. Mary's River
Stream B (UTM 701786 E, 5154680 N (NAD 83, Zone 16N))	Cooling water effluent prior to combining with the process wastewater stream (Stream C) and prior to discharge to the St. Mary's River.
Stream C (UTM 701788 E, 5154710 N (NAD 83, Zone 16N))	Process wastewater effluent prior to dilution with the cooling water stream (Stream B) and prior to discharge to the St. Mary's River.
Stream D (UTM 701728 E, 5154655 N (NAD 83, Zone 16N))	Effluent from the fuel oil containment runoff collection system before discharge to ground near the northwest perimeter of the site.

Stream Monitoring Program		
Effluent Parameter	Frequency	Sample Type
For Stream A: Aluminum, Arsenic, Cadmium, Copper, Iron, Lead, Mercury, Nickel, and pH.	Monthly	Grab
For Stream B: Aluminum, Arsenic, Cadmium, Copper, Iron, Lead, Mercury, and Nickel.	Monthly	Grab
For Stream C: 1. Oil and Grease, pH, and Total Suspended Solids 2. Chloride, Total Organic Carbon (TOC)	1. Weekly 2. Once during each brine squeeze operation	Grab
For Stream D: Oil and Grease, pH, Phenol and Total Suspended Solids, and Visual observations as per Condition 5.	Monthly	Grab

Designated Cooling Water Effluent Stream Tables

Monitoring Program for Designated Cooling Water Effluent Stream 0200, 60 Inch Sewer

Effluent Sampling Points: 0200, 60 Inch Sewer (UTM 241068.38, 5157037.51 (NAD83, Zone 17N))

Effluent Parameters	Monitoring Frequency	Sample Type
Column 1	Column 2	Column 3
Total Cyanide	Weekly	Composite
Ammonia plus Ammonium	Weekly	Composite
Total Suspended Solids (TSS)	Weekly	Composite
Total Lead	Weekly	Composite
Total Zinc	Weekly	Composite
Phenolics (4AAP)	Weekly	Composite
Oil and grease	Weekly	Composite

Monitoring Program for Designated Cooling Water Effluent Stream 0300, 30 Inch Sewer

Effluent Sampling Points: 0300, 30 Inch Sewer (UTM 240906.90, 5157321.69 (NAD83, Zone 17N))

Effluent Parameters	Monitoring Frequency	Sample Type
Column 1	Column 2	Column 3
Total Cyanide	Weekly	Composite
Ammonia plus Ammonium	Weekly	Composite
Total Suspended Solids (TSS)	Weekly	Composite
Total Lead	Weekly	Composite
Total Zinc	Weekly	Composite
Phenolics (4AAP)	Weekly	Composite
Oil and grease	Weekly	Composite

Monitoring Program for Designated Cooling Water Effluent Stream 0500, Cold Mill 24 Inch Sewer

Effluent Sampling Points: 0500, Cold Mill 24 Inch Sewer (UTM 242243.82, 5158319.75 (NAD83, Zone 17N))

Effluent Parameters	Monitoring Frequency	Sample Type
Column 1	Column 2	Column 3
Total Suspended Solids (TSS)	Weekly	Composite
Total Lead	Weekly	Composite
Total Zinc	Weekly	Composite
Oil and grease	Weekly	Composite

Monitoring Program for Designated Cooling Water Effluent Stream 0800, Boiler House

Effluent Sampling Points: 0800, Boiler House (UTM 241379.37, 5156791.35 (NAD83, Zone 17N))

Effluent Parameters	Monitoring Frequency	Sample Type
Column 1	Column 2	Column 3
Total Suspended Solids (TSS)	Weekly	Composite
Oil and grease	Weekly	Composite

Monitoring Program for Designated Cooling Water Effluent Stream 1000, #2 Steelmaking

Effluent Sampling Points: 1000, #2 Steelmaking (UTM 241580.32, 5158093.33 (NAD83, Zone 17N))

Effluent Parameters	Monitoring Frequency	Sample Type
Column 1	Column 2	Column 3
Total Suspended Solids (TSS)	Weekly	Composite
Total Lead	Weekly	Composite
Total Zinc	Weekly	Composite
Oil and grease	Weekly	Composite

Monitoring Program for Designated Cooling Water Effluent Stream 1500, Cold Mill 20 inch Sewer

Effluent Sampling Points: 1500, Cold Mill 20 inch Sewer (UTM 242134.31, 5158245.13 (NAD83, Zone 17N))

Effluent Parameters	Monitoring Frequency	Sample Type
Column 1	Column 2	Column 3
Total Suspended Solids (TSS)	Weekly	Composite
Total Lead	Weekly	Composite
Total Zinc	Weekly	Composite
Oil and grease	Weekly	Composite

Rainbow Trout and Daphnia Magna Acute Lethality Testing*

Sampling Location**	Monitoring Frequency	Sample Type
Column 1	Column 2	Column 3
Blast Furnace 60 Inch Sewer (MISA 0200)	Monthly	Grab
Blast Furnace 30 Inch Sewer (MISA 0300)	Monthly	Grab
Cold Mill 24 Inch Sewer (MISA 0500)	Monthly	Grab
Main Water Filtration Plant (Process Effluent (0700)	Monthly	Grab
Boiler House (MISA 0800)	Monthly	Grab
#2 BOSP Cooling Tower (MISA 1000)	Monthly	Grab
Cold Mill 20 Inch Sewer (MISA 1500)	Monthly	Grab
Bar and Strip Lagoon (MISA 0100)	Monthly	Grab

* see Condition 9(6) and 9(7) for details

** UTM coordinates of the sampling locations appear in other tables in this Schedule.

Fathead Minnow and Ceriodaphnia Dubia Chronic Toxicity Testing

Location	Monitoring Frequency	Sample Type
Column 1	Column 2	Column 3
Main Water Filtration Plant (0700)	Semi Annual*	Grab
Bar and Strip Lagoon (0100)	Semi Annual*	Grab

*Twice per year

Process Subcategories, products and Reference Production Rate

Process Category	Product	Reference Production Rate (Tonnes per Day)
Column 1	Column 2	Column 3
Electric Arc Furnace	Raw Steel	10137
Cokemaking Process	Metallurgical Coke	2,994
Ironmaking Process	Molten Iron	6,441
Steelmaking Process	Raw Steel	6,577
#2 Continuous Casting Process & Hotforming Process	Plate and Strip	11,431
Finishing Process	Pickled, Cold Rolled, Tempered Coils and Sheets	1,470

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 4-0196-88-907, 4585-A45R9P issued on January 25, 1990, May 9, 2017, and their all associated Notices.

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me, the Ontario Land 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 ("the Notice") 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 available 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:

Registrar*
Ontario Land Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5
OLT.Registrar@ontario.ca

and

The Minister of the Environment,
Conservation and Parks
777 Bay Street, 5th Floor
Toronto, Ontario
M7A 2J3

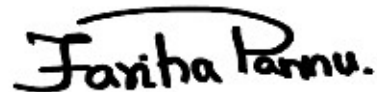
and

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 Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.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 29th day of February, 2024



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

KH/

- c: Area Manager, MECP Sault Ste. Marie Area Office.
- c: District Manager, MECP Sudbury District
Fred Post/Matt Amadio, Algoma Steel Inc.