Ontario

Ministry of the Environment, Conservation and Parks
Ministère de l'Environnement, de la Protection de la nature et des Parcs

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 9162-DRNMKY
Issue Date: March 27, 2026

Ontario Power Generation Inc.
1675 Montgomery Park Rd
Pickering, ON L1V 2R5

Site Location: Pickering Nuclear Generating Station
1675 Montgomery Park Rd Lots 17, 18 19, 20, 21, Range 2
Pickering, ON L1V 2R5

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 as well as modifications of existing stormwater management Works to service the expansion of the Pickering Waste Management Facility (PWMF) – Phase II Area located at the above site address, for the collection, transmission, treatment and disposal of stormwater runoff from a total site area of approximately 6.4 hectares, to provide Enhanced Level water quality protection and erosion control and to control post-development peak flows to limit the hydraulic grade line to remain below the finished floor elevation of the serviced buildings up to and including the 100-year storm event, discharging to Lake Ontario via an existing outfall , consisting of the following Works:

PROPOSED WORKS:

Security Kiosk:

- **Conveyance Works (catchment area 0.08 hectares)**: storm sewers up to 300 millimeter in diameter, servicing a proposed security kiosk, discharging via headwall towards the existing stormwater conveyance system on site;

Pickering Component Storage Structure (PCSS) and Storage Building 5 (SB-5):

- **Subsurface Storage (catchment area 6.32 hectares)**: subsurface storage provided in oversized storm sewers up to 1,050 millimeter in diameter, servicing the PCSS and SB-5 buildings along with the surrounding area, controlled by and discharging via the existing 750 millimeter diameter storm sewer located north-east of the existing PWMF outfall towards Lake Ontario;

- **Manufactured Treatment Units (catchment area 6.32 hectares)**: two (2) identical oil and grit separators, Imbrium Jellyfish JF10-18-4 (or Equivalent Equipment) located within the gravel area south-west of SB-5 and installed in an offline-configuration, each having a sediment storage capacity of 1,138 kg and an oil storage capacity of 2,302 litres, a treatment flow rate of approximately 78.9 litres per second, receiving runoff from the storm sewer system described above, discharging via 450 millimeter diameter outlet pipes back in into the on-site storm sewer system;

the establishment of stormwater management Works to service the proposed common services building located at the above site address, for the collection, transmission, treatment and disposal of stormwater runoff from a total site area of approximately 0.3 hectares, to provide infiltration of roof runoff and to control post-development peak flows to limit the hydraulic grade line to remain below the finished floor elevation of the serviced buildings up to and including the 100-year storm event, discharging to Lake Ontario via an existing outfall , consisting of the following proposed Works:

Common Services Building (CSB):

- **Surface Storage (catchment area 0.1 hectares)**: surface storage provided via two (2) detention swales located east and west of the CSB, receiving roof runoff from the building as well as surface runoff from the surrounding area, providing a combined storage volume of approximately 34 cubic metres to store and infiltrate the 25 mm storm event, with the west swale discharging excess runoff overland and the east swale discharging excess runoff via underdrain and overflow catch basin towards an existing storm sewer south of the CSB;

- **Subsurface Storage (catchment area 0.11 hectares)**: subsurface storage provided in one (1) oversized storm sewer 1,000 millimeter in diameter located south of the CSB, receiving roof runoff from the building, sized to detain the 100-year storm event, providing a storage volume of approximately 13.8 cubic metres controlled by and discharging via one (1) 150 millimetre discharge pipe towards an existing storm sewer south of the CSB;

PREVIOUSLY PROPOSED WORKS:

sewage works for the collection, transmission, treatment and disposal of wastewater, cooling water, and stormwater at the four Reactor Units of the Pickering A (PNGS-A) and the four Reactor Units of the Pickering B (PNGS-B) at the above mentioned Site Location, consisting of the following Works:

sewage works to serve the proposed new electrode boiler system located on El.294’ of Turbine Hall in Unit 2 to provide primary steam supply (once-through system) for building heating, including:

- two blowdown tanks, each with a volume capacity of 947 L, and the Operator office service sink drain through the tundish downstream of the blowdown tank, discharging to the existing inactive drainage system via the condensate storage tank drain flow path which leads to the Unit 2 CCW discharge duct and eventually discharges to the Lake;

- one (1) chemical feed system providing ammonia, sodium hydroxide and sodium bisulphite solutions;

- heating system condensate collected and discharged via the existing inactive drainage system through inactive drainage sumps located at El. 225' discharged to the old water treatment plant via a common header monitored under MISA Control Point 4600**;**

EXISTING WORKS:

Stormwater Management Facility For The Phase II Pickering Waste Management Facility

stormwater management facility to service a total of 3.8 ha drainage area of the Used Fuel Dry Storage Facility, located at the southern part of the OPG Pickering Generation Station, designed to provide quality control of stormwater run-off from storm events up to 1:100 years return frequency, discharging to Lake Ontario, consisting of the following:

- A network of storm sewers servicing the 2.8 ha drainage area of Storage Building 3 (SB-3) and Storage Building 4 (SB-4) located on the north east and south part of the site, respectively, consisting of approximately 170 m long PVC storm sewers with diameters ranging from 300 mm to 450 mm and approximately 380 m long concrete storm sewers with diameters ranging from 450 mm to 750 mm, equipped with manholes, and discharging to two (2) oil/grit separators, as described below;

- Two (2) oil/grit separators (Stormceptor ™ model STC 6000 and Stormceptor ™ model STC 4000) located at the southern part of the site, providing a combined sediment storage capacity of 43,435 litres (L), an oil storage capacity of 7,290 L, with a treatment bowl diameters of 3,658 mm and 3,048 mm respectivedly, discharging through a 1500 mm diameter concrete common outfall to Lake Ontario;

PNGS-A Fire Water Chlorination System

Existing independent chlorination system for the protection of the PNGS-A fire water supply consisting of the following:

- Two (2) chlorine injection pumps (P2274 and P2275) each with a design capacity range of 0.1 to 11 litres per hour, located in the Chlorine Room directly north of the PNGS-A Screenhouse, drawing up to 12% sodium hypochlorite solution from the existing sodium hypochlorite solution tanks for injection to the fire water pumps, equipped with control panels, four (4) over pressure protection valves, and back pressure control valves.

Cooling Water

- Piping for the collection and discharge of condenser cooling water from each of the three (3) low pressure turbine steam condensers at each of the eight (8) Reactor Units:
  - at a design rate of approximately 114 cubic metres per second from Pickering A through the Condenser Cooling Water (CCW) Discharge Ducts to the PNGS-A outfall; and
  - at a design rate of approximately 138 cubic metres per second from PNGS-B through the CCW Discharge Ducts to the PNGS-B outfall.

- Two (2) chlorine houses containing piping, storage/dilution tanks, pumps, total residual chlorine monitors and appurtenances for the hypochlorination of Low Pressure Service Water, High Pressure Service Water, Fire Water and Screen Wash Water, to control Zebra/Quagga mussels, using an approximately 6-12 percent sodium hypochlorite solution, at each of the eight (8) Reactor Units and also including hypochlorination of the Emergency Water Supply at each of the Reactor Units at PNGS-B;

- Sampling/monitoring equipment for the measurement of Total Residual Chlorine in the Reactor Building Service Water effluent at the Reactor Building Service Water Discharge Headers serving Pickering A and discharging to the PNGS-A Outfall and serving PNGS-B and discharging to the Tempering Water Duct, which discharges to the PNGS-B Outfall;

- a dechlorination system serving PNGS-A consisting of:

    - piping, valves, flow meter and a metering pump rated up to approximately 7 Litres per minute; and

    - one (1) cross-linked High Density Polyethylene (HDPE) double-walled sodium bisulphite solution Storage Tank located outdoors, north of the MISA Trailer, southwest of Reactor Unit 4, with a capacity of approximately 9.7 cubic metres, sitting within an approximately 3.0 metre by 3.7 metre by 0.3 metre high spill containment area to feed a nominally 38 percent sodium bisulphite solution from the storage tank to the approximately 1067 millimetre diameter Unit 4, Reactor Building Service Water discharge line which joins the discharge header conveying Service Water discharges from Reactor Units 1, 2, and 3, via a Total Residual Chlorine / Dissolved Oxygen Monitoring Station to the PNGS-A Outfall.

- A dechlorination system serving PNGS-B consisting of:

    - PVC piping, valves, flow meter and a metering pump, rated up to approximately 7 Litres per minute; and

    - one (1) double-walled stainless steel sodium bisulphite solution Storage Tank located outdoors near the No. 3 Valve Pit, south of Reactor Unit 8, with a capacity of approximately 40 cubic metres, to feed a nominally 38 percent sodium bisulphite solution from the storage tank to the approximately 2130 millimetre diameter Reactor Building Service Water discharge header conveying Service Water discharges from Reactor Units 5, 6, 7, and 8, via a Total Residual Chlorine/Dissolved Oxygen Monitoring Station to the Tempering Water Duct and hence to the PNGS-B Outfall.

- Piping and equipment to allow the injection of sulphur hexafluoride (SF6) to the inlet waterbox side of each of the twenty-four (24) condensers at the PNGS-A and PNGS-B Stations for periodic tube to shell leakage testing with test solution discharged to the CCW Discharge Ducts;

- A condenser tube cleaning system at each condenser on each of the eight (8) Reactor Units at PNGS-A and PNGS-B, consisting of neutral buoyancy sponge rubber balls fed at the inlet waterbox to the condenser tubes and collected at the outlet waterbox and returned via a connecting pipe between the outlet and inlet waterboxes;

- Debris filters at the inlet to each of the condensers at each of the eight (8) Reactor Units at PNGS-A and PNGS-B, with backwash water and collected debris being diverted around the condenser and rejoining the cooling water flow before entering the CCW Discharge Ducts;

- A differential pressure monitoring system for pressure drop across the debris filters and the condenser tube cleaning system, to initiate backwashing of the filters, as required, with domestic or chemically treated feedwater, with discharge to the CCW Discharge Ducts;

- Piping, dosing pumps and storage tanks to allow the injection of sodium hypochlorite solution, on an as needed basis, to each isolated condenser water box, during cleaning operations only, including a recirculation piping system connecting the inlet and outlet water boxes and provision to dechlorinate;

- One (1) sediment suction system, located at PNGS-B, consisting of:

    - an approximately 20 metre diameter concrete suction funnel, a concrete connection box with an approximately 2 metre diameter fibreglass reinforced plastic pipe;

    - two (2) steel sluice gates to allow the conveyance of sediment laden water at approximately 7 cubic metres per second;

    - two (2) submersible sediment suction pumps with a combined design pumping capacity of approximately 13 cubic metres per second; and

    - diverting sediment laden water from the PNGS-B Forebay through the Tempering Water Duct to the PNGS-B Outfall.

- Piping and equipment to discharge stored Vacuum Building Emergency Dousing Tank Water, or any intake water filtered through a filter system and pumped directly to the Dousing Tank and then discharged shortly thereafter as part of a safety test, either directly through temporary hose connections to the PNGS-A Yard Drainage System to Lake Ontario or pumped through the existing PNGS-A Reactor Unit High Pressure and Low Pressure Service Water piping and then via the Reactor Building Service Water System or the common header for the Reactor Building Service Water System piping to Lake Ontario;

- Piping modifications to allow cooling water from the shell and tube heat exchanger, used as needed, for the emergency cooling of cleaning solution from the Boiler Hot Chemical Cleaning System, to be discharged directly to the Reactor Building Service Water Duct or continue to be discharged to the existing Cooling Water Storage Tank located inside the Chemical Cleaning Waste Storage Facility; and

- Equipment to spray Reactor Building domes with biodegradable liquid runway de-icer during performance of Reactor Building Pressure Tests, as necessary during winter months.

Water Treatment Plant Building

- A concrete-lined Neutralization Sump in the basement of the Water Treatment Plant Building, with a capacity of approximately 1600 cubic metres, receiving effluent from Building, floor and equipment drains, and infrequent flows from the Settling Basin, including:

    - two (2) agitators, two (2) sump pumps and an on-line pH meter and Turbidity Meter; and

    - one (1) horizontal filter unit housing pleated polypropylene filter bundles rated at 20 microns, connected to the pump discharge piping and operated on-line as required either in Neutralization Sump recirculation or pump-out mode, operated in a Sump recirculating mode at a maximum flow of approximately 25 litres per second with one pump on-line, or operating in the pump-out mode at a maximum flow of approximately 35 litres per second with two (2) pumps on-line and discharging effluent through MISA Control Point 3100, west to the PNGS-A Outfall.

Boiler Blowdown, Condensate and Feedwater

- Piping and valves associated with the feedwater systems of PNGS-A and PNGS-B to convey boiler blowdown and steam, lay-up drains and boiler level adjustments:

    - from boilers and associated feedwater systems serving the four (4) PNGS-A Reactor Units to the PNGS-A Forebay, Intake Ducts, Outlet Ducts and Outfall; and

    - from boilers and associated feedwater systems serving the four (4) PNGS-B Reactor Units to the PNGS-B Forebay, Intake Ducts, Outlet Ducts and Outfall.

Active (Radioactive) Liquid Waste

- One (1) Active Liquid Waste System (Radioactive Liquid Waste Management System) (RLWMS), common to both PNGS-A and PNGS-B with discharge of effluent from the Discharge Tanks, without volume restrictions, via either MISA Control Point 0200 (PNGS-A) or MISA Control point 3700 (PNGS-B) to the CCW Discharge Ducts and the respective PNGS-A or PNGS-B Outfalls, including:

    - fifteen (15) holding and/or treatment tanks, with a total available storage capacity of approximately 2,500 cubic metres;

    - one (1) Purification Process and Equipment (PP&E) Treatment System for treating RLWMS effluent, on an “as needed” basis, from any of the RLWMS holding or treatment tanks, at a design flow of approximately 500 cubic metres per day, and including:

        - two (2) system booster pumps, each rated at a maximum flow of approximately 23 cubic metres per hour, used singly to feed the RLWMS effluent to the PP&E system;

        - one (1) Ultraviolet (UV) Disinfection Column containing twelve (12), 30 kilowatt UV lamps, operable singly or in multiples;

- twelve (12) aeration panels on the RLWMS waste tanks;
- two (2) Cartridge Filters operating singly or in parallel;
- two (2) carbon adsorber pressure vessels, each with approximately 3.5 cubic metres of granular activated carbon, operating singly or in parallel, with manual backwash to a bag filter with the filtrate returned to the RLWMS;
- two (2) multi-media, deep-bed filter vessels, identical in size to the carbon adsorbers, operating singly or in parallel, with no in-situ regeneration, with spent media sluiced to containers for the separation of the solid phase for approved storage and the return of any wastewater to the RLWMS;
- one (1) multi-media deep-bed filter vessel identical in size to the carbon adsorbers, containing a granular calcium carbonate top layer, periodically replenished, supported by layers of sand, garnet and gravel or containing ion-exchange resin; and
- an automatic caustic addition system consisting of a storage tank and a pump rated at approximately 19 litres per minute, for addition of sodium hydroxide solution on an as needed basis to the effluent from the ion-exchangers, with the final treated effluent discharged to one of the existing holding/treatment tanks.

- Piping to convey effluent from the laundry facilities at PNGS-A and PNGS-B to the RLWMS; and
- Temporary facilities and piping, as needed, for waterlancing of boilers serving the eight Reactor Units for removal of sludge and deposits in the boiler tubes with discharge through the RLWMS.

Inactive (Non-radioactive) Drainage

- Piping to convey Transformer and Oil Farm Filter System effluent at PNGS-B to the Inactive Drainage System, PNGS-B Cooling Water Intake Channel and to Lake Ontario via the CCW Discharge Ducts;
- Piping to convey effluent from the ventilation humidification systems at PNGS-A and PNGS-B, discharging to the PNGS-A and PNGS-B outfalls, via the inactive drainage sumps, respectively;
- One (1) shell and tube heat exchanger with an approximate design heat load of 1.7 billion Joules per hour, as part of a cleaning solution/condensate collection system, located in the Turbine Auxiliary Bay, to cool cleaning solution condensate from the steam balance header of the Reactor Unit undergoing boiler hot chemical cleaning, to an approximate discharge temperature of 40 degrees Celsius, prior to transfer to tanker trailers for treatment/disposal by an authorized agent, using Low Pressure Service Water as the cooling medium, which in turn is discharged to the Inactive Drainage system for subsequent discharge to the PNGS-A and PNGS-B Intake Channel;

- An Inactive Drainage System consisting of eight (8) concrete, in-ground, Inactive Drainage Sumps(one at each reactor Unit), with pumps, instrumentation, controls and piping to convey Sump effluents to the Old Water Treatment Plant Settling Pond;

- A dechlorination system at the Settling Pond utilizing sodium bisulphite, including provisions to use the approximately 1600 cubic metre filtered water sump at the Water Treatment Plant as an alternate reservoir, with discharge pumps and monitoring equipment to convey the treated effluent via the yard drainage lines to the PNGS-A and PNGS-B Intake Channel; and

- Piping with valves (normally closed) at each of the eight (8) Inactive Drainage Sumps to convey Sump contents to the Condenser Cooling Water (CCW) Intake Ducts, on a temporary basis, whenever the discharge route via the Old Water Treatment Plant Settling Pond is not available.

Transformer Spill Containment

- Four (4) separate, concrete spill containment structures at PNGS-A, each approximately 13.6 metres by 26.7 metres with 0.6-0.7 metre high curbing, each housing three (3) transformers serving the corresponding Unit 1, 2, 3 and 4 Reactors, and located directly north of the respective Unit Reactor Buildings along the north wall of the Turbine Building, and including in each:
  - an emergency overflow weir, approximately 152 millimetres deep and 7.3 metres long, in the north perimeter wall with an attached steel plate underflow weir, to retain any collected oil and to allow for the controlled discharge of water during an emergency deluge trip away from the Turbine Building;
  - an in-floor sump, approximately 0.6 metres square and 0.8 metres deep, collecting containment drainage;

  with the drainage from the sumps being directed via separate 102 millimetre diameter piping through the Turbine Building wall to either of two (2) oil/water separators, with one separator serving the combined drainage from Unit 3 and 4 Transformer Containment Areas and the other the drainage from the Unit 1 and Unit 2 Transformer Containment Area;

- Upgraded north side of spill containment structure surrounding PNGS-B Transformers to include steel plated underflow weir to retain most oil and minimize oil release to the environment during an unlikely deluge trip;

- At PNGS-B, there exists concrete spill containment structure approximately 144 square metres of area with 0.81 metres of depth, housing three (3) transformers serving the corresponding Unit 5, 6, 7 and 8 Reactors, and located directly north of the respective Unit Reactor Buildings.

- Two (2) stainless steel oil/water separators, located in the PNGS-A Turbine Hall Building, receiving drainage from the respective transformer containment areas described above, with each oil/water separator approximately 2.7 metres by 0.45 metres by 0.86 metres deep, rated for a flow of 5.3 Litres per second with approximately 435 Litres of oil storage capacity, with corrugated steel plates, a polypropylene coalescer pack and oil level detection floats with alarms and including on each 76 millimetre diameter inlet line, a flow restrictor and a motorized valve;

- A run of 102 mm diameter outlet piping directing flow from the Unit 3/4 oil/water separator to the Reactor Unit 4, Inactive Drains Sump, which in turn discharges via MISA Control Point 600 to the CCW Intake Water Channel;

- A run of 102 millimetre diameter outlet piping directing flow from the Unit 1/2 oil/water separator to the Reactor Unit 2, Inactive Drains Sump, which in turn discharges via MISA Control Point 400 to the CCW Intake Water Channel;

Lube Oil Tank Farm Spill Containment

- One (1) concrete curbed containment area, approximately 21.3 metres by 11.6 metres, with 0.3 metre high concrete curbing, located adjacent to the PNGS-A Reactor Unit 2 transformer area, serving six (6) horizontal turbine lubricating oil tanks, draining to a 0.76 metre square collection sump at the southeast corner, with a 102 mm diameter outlet pipe to convey drainage into the discharge piping from the Reactor Unit 1 Transformer Containment Area for treatment in the Unit 1/2 Oil/Water Separator and subsequent discharge of the water phase to the Reactor Unit 2 Inactive Drains Sump, which in turn discharges via MISA Control Point 400 to the CCW Intake Water Channel;

Yard Drainage

- Temporary hoses to direct building heating steam condensate and cooling water from the boiler chemical cleaning equipment tent enclosure at a rate of approximately 13 litres per minute to the PNGS-A or PNGS-B Yard Drainage System, with discharge directly to Lake Ontario or indirectly, to the PNGS-A and PNGS-B intake channels or the PNGS-B outfall, depending on which one of the eight (8) Reactor Units is undergoing boiler cleaning;

- Temporary hoses to discharge condensate from two (2) air compressors, used in conjunction with the hot boiler chemical cleaning, into the Yard Drainage System, as described above;

- Piping to convey blowdown from one (1) stand-by boiler, currently located south of Reactor Unit 8 at a maximum rate of approximately 3.5 litres per second during start-up and 0.11 litres per second during normal operations, to the existing Yard Drainage System and into the PNGS-B outfall;

- Hoses/piping, to direct storm water from the PNGS-A and PNGS-B Standby Generator dikes;

- Hoses/piping, to direct storm water from the PNGS-B Emergency Water and Power System Fuel Oil Tank dike;

- Hoses/piping, to direct storm water from the PNGS-A and PNGS-B sodium bisulphite tank dikes; and

- A system for the temporary discharge of collected storm water consisting of temporary hoses piping or other systems to discharge the collected storm water in the Unit 1, 3 and 4 Transformer Containment Areas, the Lube Oil Tank Farm Containment Area and the Standby Generator Containment Area to the appropriate nearby catch basins, which are part of the yard drainage system, for such time as is required to install and commission the respective oil/water separator for that containment.

- temporary hoses to discharge groundwater from excavation/construction activities into the Yard Drainage System which leads to CCW duct.

Standby Generator Spill Containment

- One (1) concrete pad containment area, approximately 82 m by 17 m, located south of the PNGS-A Reactor Buildings, serving six (6) PNGS-A standby generators, including 100 millimetre high angle iron walls on three sides and a concrete lined collection trench along the north perimeter backed on its north side by a parallel 100 millimetre high paved speed bump, with the trench draining to a trash basket protected sump in the northeast corner which then drains to an oil/water separator east of the pad;
- One (1) stainless steel oil/water separator, approximately 2.7 m by 0.45 m by 0.86 m deep, located inside a heated vault, rated for a flow of 5.3 Litres per second with approximately 435 Litres of oil storage capacity, with corrugated steel plates, a polypropylene coalescer pack and oil level detection floats with alarms and including on the 76 millimetre diameter inlet line, a flow restrictor and a motorized valve, discharging via a 76 millimetre diameter pipe to yard drainage manhole, MH-207, and thus to the Lake Ontario shoreline, just west of the Intake Channel;

The Heavy Water Upgrader Plant-B (UPP-B) and Ancillary equipment in the Heavy Water Upgrader Plant-A (UPP-A) Building (UPP-A no longer in service)

- Piping to transmit a combined discharge from UPP-B, at normal operating conditions, of approximately 504 cubic metres per hour of cooling water, approximately 11 cubic metres per hour of steam condensate from the vacuum distillation train and a small amount of condensate from the steam heating system, to the Building corrugated steel sewer line discharging to manhole, MH 162A;

- Piping to transmit a combined discharge from UPP-A of approximately 6 cubic metres per hour of cooling water from two (2) compressors and a vent condenser and a small amount of condensate from the steam heating system to the Building corrugated steel sewer line discharging to manhole, MH 162A;

- Corrugated steel sewer pipe to convey the combined UPP-B and UPP-A effluent from manhole MH162A to downstream manholes MH162 and MH164 respectively;

- Corrugated steel sewer pipe to convey the effluent from manhole MH164 to the PNGS-A Outfall; and

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

All in accordance with the following submitted supporting documents listed in **Schedule A**.

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

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

"Boiler Blowdown" means an effluent stream from the boilers and associated feedwater systems;

"CCW" means Condenser Cooling Water;

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

"Director" means a person appointed by the Minister pursuant to section 5 of the EPA for the purposes of Part II.1 of the EPA;

"District Manager" means the District Manager of the York-Durham District Office of the Ministry;

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

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

"Existing Works" means those portions of the Works included in the Approval that have been constructed previously;

"Limited Operational Flexibility" (LOF) means any modifications that the Owner is permitted to make to the Works under this Approval;

"Ministry" means the ministry of the government of Ontario responsible for the EPA and OWRA and includes all officials, employees or other persons acting on its behalf;

"Notice of Modifications" means the form entitled "Notice of Modifications to Sewage Works";

"Owner" means Ontario Power Generation Inc. and its successors and assignees;

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

"Process Material" means any raw material, product, by-product, intermediate product, oil, solvent, waste material or any other chemical used in the works approved by this Approval;

"Proposed Works" means those portions of the Works included in the Approval that are under construction or to be constructed;

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

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

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

TERMS AND CONDITIONS

1. GENERAL PROVISIONS

1. The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Works is notified of this Approval and the terms and conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

2. The Owner shall design and construct the Works in accordance with the conditions of this Approval.

3. Where there is a conflict between a provision of any document referred to in this Approval and the conditions of this Approval, the conditions in this Approval shall take precedence.

4. The issuance of, and compliance with the conditions of, this Approval does not:

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

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

2. CHANGE OF OWNER

1. The Owner shall notify the District Manager and the Director, in writing, of any of the following changes within **thirty (30) days** of the change occurring:

        a. change of 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* shall be included in the notification; or

        d. change of name of the corporation, and a copy of the most current information filed under the *Corporations Information Act, R.S.O. 1990, c. C39* shall be included in the notification.

2. In the event of any change in ownership of the Works, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the District Manager and the Director.

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

3. OPERATIONS

1. The Owner shall ensure that the Works and related equipment and appurtenances which are installed or used to achieve compliance with this Approval are properly operated and maintained.

2. The Owner shall use best efforts to immediately identify and cleanup all losses of process material from the Works.

3. The Owner shall, upon identification of process material loss, take immediate action to prevent the further occurrence of such loss.

4. 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, cleanup and disposal of process material are kept on hand and in good repair for immediate use in the event of:

    a. loss of process material from the Works; or

    b. a spill within the meaning of Part X of the EPA.

5. The Owner shall update the operations manual, prior to the commencement of operation of the Proposed Works, that includes, but not necessarily limited to, the following information:

    a. operating procedures for routine operation of the Works;

    b. inspection programs, including frequency of inspection, for the Works and the methods or tests employed to detect when maintenance is necessary;

    c. repair and maintenance programs, including the frequency of repair and maintenance for the Works;

    d. contingency plans and procedures for dealing with potential spill, bypasses and any other abnormal situations and for notifying the District Manager; and

    e. complaint procedures for receiving and responding to public complaints.

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

4. EFFLUENT OBJECTIVES

COOLING WATER

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

    a. The Total Residual Chlorine concentration in the PNGS-A and PNGS-B Outfalls prior to entering Lake Ontario does not exceed 0.002 milligrams per litre; and

    b. The chlorination of service water systems at PNGS-A and PNGS-B is carried out in such a manner as to maintain a concentration not exceeding 0.5 milligrams per litre of Total Residual Chlorine, at the furthest point in the service water systems.

2. The Owner may start chlorination of the Service Water System for the season when the intake water to the Works exceeds 12 degrees Celsius for seven (7) consecutive days, or when Zebra/Quagga mussel veligers are present in the immediate area of the water intake or when the measured thermal transfer efficiency of the moderator heat exchanger indicate biofilm buildup or fouling conditions and shall end chlorination either no later than 30 days after the day on which the intake water temperature first drops to less than 12 degrees Celsius, or when veligers are no longer present in significant numbers.

Dechlorination using Sodium Bisulphite

3. The Owner may continuously add sodium bisulphite solution to the PNGS-A and PNGS-B Reactor Building Service Water discharge headers provided that the concentration of dissolved oxygen in the header is maintained at a level greater than 4 milligrams per Litre at all times prior to discharge to the PNGS-A and PNGS-B Outfalls.

4. The Owner shall ensure, to the extent possible, that the sodium hypochlorite and the sodium bisulphite systems are operated concurrently.

5. Despite Subsection (4), the Owner may operate either the chlorination or the dechlorination systems non-concurrently when both systems are being turned on or are being turned off, provided that no dechlorination solution is needlessly added to the Service Water.

Leak Testing

6. The Owner may use and discharge to the CCW Ducts of PNGS-A and PNGS-B, sulphur hexafluoride (SF6) in condenser water from periodic condenser leak testing.

Condenser Tube Cleaning

7. The Owner when performing tube cleaning using sponge balls shall, at all times:

   a. keep to a minimum, sponge ball losses and ball discharges to the CCW Ducts of PNGS-A and PNGS-B and hence to Lake Ontario;

   b. use best efforts to maintain the outflow screens of the Condenser Tube Cleaning System free of any blockages and not subject them to any conditions that may trigger the automatic opening of the screens; and

   c. maintain a record of sponge ball consumption and upon request, make such records available for inspection by the Ministry.

8. In the event of a complete loss of sponge balls to Lake Ontario, the Owner shall:

   a. notify the District Manager as soon as possible during normal working hours;

   b. take immediate action to identify the cause of the loss of sponge balls; and

   c. take immediate action to prevent further ball discharges.

Laundry Effluent

9. The Owner may use a low phosphate detergent, containing not more than four point eight percent (4.8 %) phosphorus (by weight), in the laundries at both PNGS-A and PNGS-B provided that the laundry effluents are discharged to the RLWMS.

STREAM AND FEEDWATER

10. The Owner shall use best efforts to design, construct, and operate the Works with the objective that the daily discharges to the Cooling Water Discharge Ducts from the Reactor Unit Boilers and associated systems and their duration and flow as set out in Table 1 in **Schedule B** are not exceeded for the Boiler operating conditions and the types of flows shown in the Table, and provided that the concentration and minimum dilution flow requirements under Condition 5 are met.

11. The Owner shall measure or estimate the daily effluent flows from the boilers and associated systems per Reactor Unit.

12. The Owner shall use best efforts to design, construct, and operate the Works with the objective that the daily discharge to the Yard Drainage System from the Stand-by Boiler and associated systems and its duration and flow as set out in Table 2 in **Schedule B** is not exceeded for the Boiler operating conditions and the types of flows shown in the Table, and provided that the concentration and minimum dilution flow requirements under Condition 5 are met.

SPILL CONTAINMENT

PNGS-A and Lube Oil Tank Farm Spill Containment Oil/Water Separator Effluents

13. The Owner shall use best efforts to design, construct and operate the Works such that the concentration of each listed effluent parameter at the sampling points outlined in Table 3 and 4 of **Schedule B** does not exceed the respective maximum concentration objective listed in the same Table for that sampling point at the monitoring frequency and for the sample type specified.

14. Until such time as is required to install and commission the Unit 1 Transformer and Lube Oil Tank Farm Spill Containment Oil/Water Separator and the Unit 3 and 4 Containment Area Oil/Water Separator, or until August 31, 2006, whichever date is the earlier, the Owner may discharge the collected storm water in each respective area, to the appropriate nearby catch basins, which are part of the yard drainage system, provided that the concentration of oil and grease does not exceed fifteen (15) milligrams per litre, as determined from the analysis of each of three (3) grab samples collected from different parts of the respective containment area, prior to discharge.

YARD DRAINAGE SYSTEM

15. The Owner may discharge collected storm water from each of the diked spill containment areas enclosing the Fuel Oil Storage Tanks listed in Table 5 of **Schedule B**, through the PNGS-A or PNGS-B yard drainage systems to Lake Ontario, as appropriate, provided that the collected storm water in the respective dike does not contain a visible film, a sheen or foam and provided that a grab sample of the specific dike-contained contents is analyzed for oil and grease prior to release, and provided that the oil and grease concentration of the sample is equal to or less than 15 milligrams per litre.

16. The Owner may discharge collected storm water from each of the diked spill containment areas enclosing the sodium bisulphite dechlorination Tanks at PNGS-A and PNGS-B, listed in Table 6 of **Schedule B**, through the respective PNGS-A or PNGS-B Reactor Building Service Water systems to Lake Ontario, provided that the collected storm water does not emit noticeable odours and a grab sample analysis of the dike contents shows no detectable sulphite residuals.

Inactive Drainage Dechlorination Works

17. The Owner shall use best efforts to design, construct, and operate the Works such that the concentration of each listed effluent parameter at the following sampling points does not exceed the respective maximum concentration objective listed in Table 7 of **Schedule B** for that sampling point at the monitoring frequency and for the sample type specified.

Standby Generator Oil/Water Separator Effluent

18. The Owner shall use best efforts to design, construct, and operate the Works such that the concentration of oil and grease at the following sampling point does not exceed the maximum concentration objective, as listed in Table 8 of **Schedule B** for that sampling point at the monitoring frequency and for the sample type specified.

19. For the purposes of short-term maintenance work when the Oil/Water Separator is off-line, the Owner may discharge the collected storm water from the containment area, to the appropriate nearby catch basins, which are part of the Yard Drainage System, provided that the concentration of oil and grease does not exceed fifteen (15) milligrams per litre as measured for each of three (3) grab samples, collected from different parts of the containment area, prior to discharge.

20. Notwithstanding any other condition in this Approval, the Owner shall use best efforts to ensure that the effluent 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, a sheen, foam or discolouration on the receiving waters.

Use of De-icer During Reactor Building Pressure Tests

21. The Owner may use biodegradable liquid runway de-icer, such as Cryotech E36 or equivalent, when performing Reactor Building Pressure Tests, as necessary. The Owner shall use best efforts to minimize the quantity of de-icer reaching yard drains and soil.

PNGS-A Fire Water Chlorination System

22. The chlorination of the PNGS-A fire water is carried out in such a manner as to maintain a concentration not exceeding 0.5 milligrams per litre of Total Residual Chlorine, as measured at the designated fire water pump sampling points.

5. EFFLUENT LIMITS AND MONITORING REQUIREMENTS

1. Notwithstanding Condition 4, the Owner shall design, construct and operate the Works such that the concentrations of the effluent parameters, named in this Section in Table 9 to 13 of **Schedule B**, are not exceeded in the respective effluent streams named.

2. Unless otherwise specified below, for the purposes of determining compliance with and enforcement of the established effluent requirements listed below, exceedance of a maximum effluent concentration/value is deemed to have occurred if any single grab sample or on-line reading and a second immediate confirmatory grab sample or on-line reading, analyzed for a parameter/value for which an effluent requirement is listed below, are both greater than the corresponding concentration/value set out for that parameter as an effluent requirement or with respect to the parameter, pH, both values are outside of the indicated range.

3. The Owner shall ensure that samples and measurements taken for the purposes of this Approval are taken at a time and in a location characteristic of the quality and quantity of each designated effluent stream or receiving water body, as the case may be, over the time period being monitored.

4. The Owner shall establish and carry out, upon commencement of operations of the Works, a monitoring program for the effluent streams named below by collecting samples at the sampling points named, in accordance with the monitoring frequency and sample type specified for each parameter named, in its respective table below, unless otherwise required, in writing, by this Approval or by the District Manager.

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

    a. the Ministry's publication "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater" (January 1999), ISBN 0-7778-1880-9, as amended from time to time by more recently published editions;

    b. the publication "Standard Methods for the Examination of Water and Wastewater" (21st edition) as amended from time to time by more recently published editions;

    c. 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), as amended from time to time by more recently published editions;

    d. American Society for Testing Materials, "Manual on Industrial Water and Industrial Wastewater, Publication 148F", Second Edition, 1962, as amended from time to time by more recently published editions;

    e. U.S. Environmental Protection Agency monitoring procedures as published under Title 40, Part 136 of the Code of Federal Regulations; and

    f. any other published protocols for parameters not mentioned in the publications referred to in (a) to (e), provided the written approval of the District Manager is obtained prior to the sampling and analysis.

6. The monitoring requirements specified in the tables below with respect to any parameter, which is not specifically included under Ontario Regulation 215/95, as amended, may be modified by the District Manager in writing from time to time.

COOLING WATER

7. The Owner shall design, operate the Works such that within sixty (60) days of the issuance of this Approval, the concentrations of the effluent parameters named in Table 9 of **Schedule B** are not exceeded in the PNGS-A and PNGS-B Outfalls, as determined at the monitoring frequency and by the sample type specified in the table.

8. For the purposes of determining compliance with the requirements of Subsection (7), the Owner may, where appropriate, make use of upstream concentration measurements in the service water, the boiler steam and condensate effluents, the Heavy Water Upgrader Plant effluent and the CCW and their respective flows in determining the concentrations in the PNGS-A and PNGS-B Outfalls.

Vacuum Building Dousing Water

9. The Owner may discharge stored Vacuum Building Emergency Dousing Tank Water provided that for any water stored in the Dousing Tank for a period exceeding one (1) year, the Owner performs both a Rainbow Trout and a Daphnia magna acute lethality test on a grab sample of the stored water and the results of both tests indicate that the sample is non-acutely lethal.

Inactive Drainage

10. The Owner shall design, construct and operate the inactive drainage works at PNGS-B such that each grab sample of effluent from Manholes MH 89, MH 625 or from the individual Inactive Drainage Sumps, depending on which discharge route is in service, collected quarterly and tested in accordance with the test methods outlined under Subsection (5), is non-acutely lethal to Rainbow Trout and Daphnia magna, and is within the 6.0 to 9.5 pH range

11. The Owner shall measure in cubic metres, the daily volume of the Inactive Drainage Combined Header Effluent prior to the tie-in points to the Settling Basin, Manholes MH 89/MH 625, and the Filtered Water Sump, or the daily volume of individual Inactive Drainage Sump effluent, using flow measurement methods that allow the daily volumes, in either case, to be determined to an accuracy within plus or minus twenty percent (+/- 15%).

Temperature limits, Monitoring, Operational requirements and Reporting

12. The Owner shall establish and carry out the required temperature monitoring set out in Table 10A to 10C of **Schedule B** at the sampling points named and in accordance with the stated monitoring frequency and sample type.

13. The Owner shall ensure that the accuracy of the temperature measurements required to demonstrate compliance under this Section is, as a minimum, within plus or minus 0.5 Celsius degrees.

14. The Owner shall ensure that the temperature of each of the CCW discharge effluents, prior to entering the respective PNGS-A and PNGS-B Outfalls, meets the lesser temperature based on both requirements of final temperature and temperature difference, as set out in Tables 10A, 10B and 10C of **Schedule B**, as determined at the monitoring frequency and by sample type specified in the Tables for the specific Station operating condition stated and subject to the additional conditions, as stated.

    a. When the Owner receives notice of a Declared Electricity Supply Emergency from the Independent Electricity System Operator (IESO), instead of meeting the temperature and monitoring requirements set out in Table 10A of **Schedule B**, the Owner may operate to meet the temperature and monitoring requirements set out in Table 10B of **Schedule B**, provided that:

i. the Owner notifies the District Manager forthwith of each IESO Declared Electricity Supply Emergency affecting the Station;

ii. the total number of days under which the Station operates under the conditions set out in Table 10B of **Schedule B** does not exceed fifteen (15), unless otherwise approved by the District Manager; and

iii. the Owner carries out appropriate outfall and immediate lake area surveillance for evidence of fish kill from a craft on the lake at a minimum frequency of twice per day during daylight, weather permitting, for the period that the Station is operating under the requirements of Table 10B of **Schedule B.**

b. When the Station is subjected to an algae impact event resulting in intake water pump shutdown, instead of meeting the temperature and monitoring requirements set out in Table 10A of **Schedule B**, the Owner may operate to meet the temperature and monitoring requirements set out in Table 10C of **Schedule B**, provided that:

i. the Owner notifies the District Manager forthwith of each algae impact event where there is evidence of a fish kill;

ii. the total number of consecutive hours under which the Station operates under the conditions set out in Table 10C of **Schedule B** does not exceed twenty-four (24) hours for any single algae impact event, unless otherwise approved by the District Manager;

iii. the total number of algae impact events under which the Station operates under the conditions set out in Table 10C of **Schedule B** does not exceed sixteen (16), unless otherwise approved by the District Manager;

iv. the Owner has in place and is operating the approximate 610 metre long Fish Diversion/Algae Capture Net, in a manner to fully enclose the intake channel, during a minimum period from July 1 to October 31, weather permitting, of each year, unless otherwise approved by the District Manager; and

v. the Owner carries out appropriate outfall and immediate lake area surveillance for evidence of fish kill from a craft on the lake at a minimum frequency of twice per day during daylight, weather permitting, for the period that the Station is operating under the requirements of Table 10C of **Schedule B**.

Special Reporting

15. In addition to the requirements under Condition 8, the Owner shall report to the District Manager each exceedance of the temperature limits and each non-compliance with any of the listed operational requirements, as specified under Section 5.1, orally, forthwith, and in writing within fifteen (15) working days of the oral report, including the specific causes of the exceedance and/or non-compliance.

16. The Owner shall prepare, maintain current and make available to the District Manager,upon request, in a format approved by the District Manager, the following temperature monitoring and operational records, which shall be kept at the stations for a minimum retention time of five (5) year:

    a. the daily average intake water temperature;

    b. the instantaneous daily maximum effluent temperatures for the PNGS-A and PNGS-B outfalls;

    c. a plot of the average daily effluent temperature and daily average temperature rise (effluent minus intake temperature) for the PNGS-A and PNGS-B outfalls;

    d. the dates and duration of each Declared Electricity Supply Emergency which impacted PNGS-A and PNGS-B Stations for each calendar month;

    e. the dates and duration of each algae event which impacted the operation of PNGS-A and PNGS-B Cooling Water Intake Pumps and the effect on the Station discharge temperature profile including additionally, the minimum and maximum hourly average effluent temperature and temperature rise, for each 24 hour period for the duration of each event; and

    f. the findings from the outfall and immediate lake area surveillance activities for evidence of fish kill during Declared Electricity Supply Emergencies or Algae Impact events.

17. The Owner shall, by timely ongoing literature reviews and evaluations, keep current on technologies and processes which potentially could be applied at the Station to reduce the impact of algae growth and/or algae transport on the Station intake water, and shall maintain such a technology file at the Station, for Ministry review, upon request.

STEAM AND FEEDWATER

18. The Owner may use and discharge the chemicals, ammonia, hydrazine and morpholine in the boiler and heat exchanger systems for each Reactor Unit under the conditions specified in Table 11 of **Schedule B** for the stated Reactor Unit Condition, including required monitoring and analysis and provided that at all times the Minimum Cooling Water flows to the PNGS-A and PNGS-B CCW Ducts are 24 cubic metres per second (2 CCW Pumps) and 29 cubic metres per second (2 CCW Pumps), respectively.

19. The Owner shall ensure, that over each calendar year, sets of samples are collected from a minimum of four (4) boiler/feedwater effluents during Non-Standard, Transient and Shutdown Reactor Unit Conditions at either PNGS-A or B, should these conditions occur during the year, and are analyzed for the parameters listed in Table 11 of **Schedule B**.

20. Despite Subsection (18), the Owner may instead operate with minimum Cooling Water flows to the PNGS-A and PNGS-B CCW Ducts of 12 cubic metres per second (1 CCW Pump) and

14.5 cubic metres per second (1 CCW Pump), respectively, provided that the concentrations of each of the discharged chemicals, ammonia, hydrazine, and morpholine in the Boiler and Heat Exchanger Systems for each Reactor Unit are fifty percent (50%) or less of the concentrations specified in Table 11 of **Schedule B**, for the appropriate Reactor Unit Condition, and provided that the monitoring frequency for the Boiler Blowdown Effluent from the Unit's Boiler System is increased from monthly to twice per week for the duration of the one pump operation.

Boiler Blowdown for Chemical Cleaning of Steam Generators

21. The Owner may, in conjunction with the planned maintenance shutdown for chemical cleaning of Steam Boilers associated with any one of PNGS-B Reactor Units 5 to 8, discharge to the Cooling Water Intake Duct, boiler blowdown from that Reactor Unit, as a continuous stream of up to approximately 1050 cubic metres per day, prior to the shutdown, provided that:

    a. the blowdown discharge duration does not exceed a period of fourteen (14) days for any single maintenance shutdown of a Reactor Unit;

    b. the blowdown is used as an emergency measure to ensure that tritium levels in the contaminated stream condensate generated during chemical cleaning do not exceed 74,000 Becquerels per litre;

    c. the concentrations of total ammonia, hydrazine and morpholine in the blowdown do not exceed 20 percent of the concentrations shown in the "Standard" Column in Table 11 of **Schedule B**;

    d. there is a minimum cooling water flow to the PNGS-B CCW Duct of 29 cubic metres per second; and

    e. the Owner measures or estimates in cubic metres, the daily volume of blowdown from the Reactor Unit.

22. The Owner shall establish and carry out a monitoring program for the boiler blowdown from steam boilers for the Reactor Unit to be shutdown for chemical cleaning, by taking a grab sample of the blowdown from that Reactor Unit, at a daily frequency for each day that the boiler blowdown from the Reactor Unit is being discharged in accordance with Subsection (21) above, and analyzing each sample for the parameters ammonia, hydrazine and morpholine.

Stand-by Boiler

23. Should the Owner use and discharge the chemicals ammonia, hydrazine and morpholine in the Stand-by Boiler System, the requirements specified in Table 12 of **Schedule B** shall be met.

ACTIVE LIQUID WASTE

24. Approval is granted to discharge without volume restriction, effluent from the Active Liquid Waste System also know as the Radioactive Liquid Waste Management System common to PNGS-A and PNGS-B through the Condenser Cooling Water Discharge Ducts of PNGS-A and PNGS-B such that the radiological emissions are in accordance with the regulations as issued by the Canadian Nuclear Safety Commission under the Station operating licenses.

HEAVY WATER UPGRADER PLANT

25. The Owner shall operate the Works in such a manner that the temperature of the final effluent from the Heavy Water Upgrader Plants (UPP-A plus UPP-B) does not result in a non-compliance with the requirements under Subsection (14).

26. The Owner shall design, construct and operate the Works such that the concentration of each of the effluent parameters, in the Heavy Water Upgrader Plant final effluent, as listed in Table 9 of **Schedule B**, does not result in a non-compliance with the requirements under Subsection (7).

27. The stream named below shall be sampled at the sampling point named, on a day when the Upgrader Plant is in operation, in accordance with the monitoring frequency and sample type specified for each parameter named in Table 13 of **Schedule B**, unless otherwise required in writing by this Approval or by the District Manager.

28. Independent of all other requirements with respect to dilution water, the Owner shall ensure that whenever the Heavy Water Upgrader Plant is operating, there is, as a minimum, one (1) PNGS-A, CCW pump in service with a minimum flow of twelve (12) cubic metres per second for dilution of the Heavy Water Upgrader Plant discharge at the PNGS-A Outfall.

6. RECORDS RETENTION

1. The Owner shall retain for a minimum of three (3) years from the date of their creation, or longer if requested in writing by the District Manager, all records and information related to, or resulting from, the monitoring activities required by this Approval including all calibration and maintenance records.

7. LIMITED OPERATIONAL FLEXIBILITY

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

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

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

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

    a. Modifications to the Works that result in an increase of the Rated Capacity of the Works;

    b. Modifications to the Works that may adversely affect the approved effluent quality criteria or the location of the discharge/outfall;

    c. Modifications to the treatment process technology of the Works, or modifications that involve construction of new reactors (tanks) or alter the treatment train process design;

    d. Modifications to the Works approved under s.9 of the EPA; and

    e. Modifications to the Works pursuant to an order issued by the Ministry.

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

6. If the implementation of Limited Operational Flexibility requires changes to be made to the Emergency Response, Spill Reporting and Contingency Plan, the Owner shall, provide a revised copy of this plan for approval to the local fire services authority prior to implementing Limited Operational Flexibility.

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

8. At least thirty (30) days prior to implementing Limited Operational Flexibility, the Owner shall complete a Notice of Modifications describing any proposed modifications to the Works and submit it to the District Manager.

9. The Owner shall not proceed with implementation of Limited Operational Flexibility until the District Manager has provided written acceptance of the Notice of Modifications or a minimum of thirty (30) days have passed since the day the District Manager acknowledged the receipt of the Notice of Modifications.

8. REPORTING

1. The Owner shall notify the District Manager verbally, forthwith, to be followed by a written report within fifteen (15) working days, of any exceedances of the established performance requirements as stated in Condition 5.

2. In addition to the obligations under Part X of the EPA, the Owner shall, within fifteen (15) working days of the occurrence of any reportable spill as defined on 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.

3. The Owner shall prepare and submit to the District Manager, within thirty (30) days of the completion of the chemical cleaning of steam boilers associated with any one of Reactor Units 5 to 8, a report of all of the monitoring data collected and daily blowdown flows measured in accordance with Condition 5 (21) and Condition 5 (22) and a summary of any operational difficulties encountered and measures taken to overcome them.

4. The Owner shall prepare and submit an annual performance report to the District Manager no later than by June 1 of the following year. The report shall contain, but shall not be limited to, the following information in a format acceptable to the District Manager:

    a. an executive summary of all monitoring and compliance data collected as a requirement of this Approval in the reporting period;

    b. a comprehensive interpretation of all monitoring, analytical and flow data collected relative to the Works during the reporting period including a comparison to the effluent objectives and limits in Conditions 4 and 5, respectively;

    c. a description of any operating problems encountered and corrective actions taken during the reporting period;

    d. an evaluation of the calibration and maintenance procedures conducted on all monitoring equipment;

    e. a summary of the number of condenser leakage tests performed during the year and an estimate in kilograms of the annual amount of SF6 used for leakage testing;

    f. a copy of all Notice of Modifications submitted to the District Manager as a result of Schedule C, Section 1, with a status report on the implementation of each modification;

    g. a report summarizing all modifications completed as a result of Schedule C, Section 3; and

    h. any other information the District Manager may require from time to time.

9. ADDITIONAL REQUIREMENTS

1. In addition to the requirements outlined in the above conditions, the Owner shall also comply with requirements listed in Schedule D.

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

1. Condition 1 is imposed to ensure that the Works are built and operated in the manner in which they were described for review and upon which approval was granted. This condition is also included to emphasize the precedence of Conditions in the Approval and the practice that the Approval is based on the most current document, if several conflicting documents are submitted for review.

2. Condition 2 is included to ensure that the Ministry records are kept accurate and current with respect to approved Works and to ensure that subsequent Owners of the Works are made aware of the Approval and continue to operate the Works in compliance with it.

3. Condition 3 is included to ensure that the Works will be operated, maintained and equipped in a manner enabling compliance with the terms and conditions of this Approval, such that the environment is protected. A comprehensive operations manual(s) governing all significant areas of operation, maintenance and repair is an integral part of the operation and maintenance of the Works. Its compilation and use should assist the Owner in staff training, in proper plant operation and maintenance and in identifying and planning for contingencies during possible abnormal conditions. The manual(s) will also act as a bench-mark for Ministry staff when reviewing the Owner's operation of the Works.

4. Condition 4 is imposed to establish non-enforceable effluent quality objectives which the Owner is obligated to use best efforts to strive towards on an ongoing basis. It is the Ministry's experience that the setting of such objectives, coupled with best efforts of an Owner to achieve them, assists the Owner in complying with the effluent requirements in Condition 5.

5. Condition 5 is imposed to ensure that the effluent discharged from the Works to Lake Ontario meets the Ministry's effluent quality requirements, as specified, on a continuing basis thus minimizing environmental impact on the receiver. In addition, it requires the Owner to demonstrate on a continual basis that the quality and quantity of the effluent from the Works is consistent with the design objectives and effluent limits specified in the Approval and that the Works are not causing any impairment to Lake Ontario.

6. Condition 6 is included to set out the required record keeping procedures which will allow both the Owner and the Ministry to be kept informed of the operation of the Works as it relates to meeting the requirements of this Approval. These conditions emphasize the necessity for proper operation and maintenance as well as care and accuracy in recording the required information.

7. Condition 7 is included to ensure that the Works are operated in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider. These conditions are also included to ensure that a Professional

Engineer has reviewed the proposed modifications and attests that the modifications are in line with that of Limited Operational Flexibility, and provide assurance that the proposed modifications comply with the Ministry's requirements stipulated in the terms and conditions of this Approval, MOE policies, guidelines, and industry engineering standards and best management practices.

8. Condition 8 is included to set out the required reporting procedures which will allow both the Owner and the Ministry to be kept informed of the operation of the Works as it relates to meeting the requirements of this Approval. This condition emphasizes the necessity for care and accuracy in reporting the required information.

9. Condition 9 is imposed (with Schedule D) to provide for the substantially equivalent requirements that were set out in Ontario Regulation 215/95 as it read prior to its revocation on July 1, 2021 such that there is a continued protection of the environment.

Schedule A

1. Application for Approval of Industrial Sewage Works dated October 23, 2001 and signed by R.J. Strickert, Pickering Nuclear, Ontario Power Generation Inc., including the Supporting Information Document.

2. An information letter dated May 5, 2003 from Frank Bajurny, Manager - Environmental Compliance, Pickering Nuclear, Ontario Power Generation Inc., including an undated Supporting Information Document.

3. Application for Approval of Sewage Works, dated November 17, 2010 and signed by Ken Graham, Manager, Chemistry and Environment, Pickering Nuclear, Ontario Power Generation Inc.

4. Application for an amendment of Certificate of Approval for Industrial Sewage Number 4881-5MHQ9F - Notice No. 5 issued on February 10, 2011.

5. Application for Environmental Compliance Approval submitted by Randy Lockwood, Senior Vice President of Pickering Generating Station, Ontario Power Generation Inc. received on June 05, 2019.

6. Application for an amendment to Environmental Compliance Approval (Industrial Sewage) No. 4881-5MHQ9F dated September 9, 2016 submitted by Ontario Power Generation Inc. for the addition of Fire Water Chlorination System to the PNGS-A .

7. Application for an amendment to Environmental Compliance Approval (Industrial Sewage) No. 4881-5MHQ9F dated February 13, 2017 submitted by Ontario Power Generation Inc. for the modification of existing stormwater sewer systems and addition of new storm sewers to service the Pickering Waste Management Facility (PWMF) Phase II expansion.

8. Application for Environmental Compliance Approval submitted by Jon Franke, Senior Vice President of Pickering Generating Station, Ontario Power Generation Inc. received on May 2, 2021

9. Application for Environmental Compliance Approval submitted by Alison Yung from Pickering Generating Station, Ontario Power Generation Inc., dated March 20, 2025 and received on March 20, 2025.

10. Addendum Report - Application For An Amendment To Environmental Compliance Approval (ECA) Number 1859-C5AKBZ for Pickering Nuclear Generating Station (PNGS) - PNGS Building Heat - Electrode Boiler Project, dated March 5, 2025, prepared by Alison Yung from Pickering Generating Station, Ontario Power Generation Inc.

11. Environmental Compliance Approval Application for Industrial Sewage Works submitted by Ontario Power Generation Inc., dated August 15, 2025 and received on August 19, 2025 and amended on February 4, 2026, and all supporting documentation and information.

12. Pickering Component Storage Structure (PCSS) and Storage Building (SB) No. 5 Developments, Final Stormwater Management Report, dated June 27, 2025, prepared by Stantec Consulting Ltd.

13. Report "OPG Common Services Building – Stormwater Management", dated January 22, 2026, prepared by Next Structural Integrity Inc.

14. Storage Building No.5 (SBS) - Security Kiosk and Sally Port Development Stormwater Management Memo, dated August 7, 2025, prepared by Stantec Consulting Ltd.

Schedule B

Table 1- Effluent Discharge Rate Objectives for Boilers and Associated Systems per Reactor Unit

Boiler Operating Condition	Boiler Operating Sub-Condition	Maximum Effluent Discharge (cubic metres/day)	Type of Flow	Unit Discharge Duration
Standard	Normal (High Power)	500	Continuous	Ongoing
		180	Intermittent	
Non-Standard	Ice Protection	8500	Continuous	14 days/event
		900	Intermittent	
	Low Power	4800	Continuous	7 days/event
		290	Intermittent	
	Reactor Cooling Control*	7000	Intermittent	14 days/event
Transient	Start-up/Shutdown	8500	Continuous	7 days/event
		900	Intermittent	
	Upset	4800	Continuous	7 days/event
		1800	Intermittent	
Shutdown	Outage	1100	Intermittent	14 days/event
	Lay-up	1100	Intermittent	120 days/event **

* Typically during a service water outage ** Notification of the District Manager required if the duration is to exceed 120 days

Table 2- Effluent Discharge Rate Objectives for the Stand-by Boiler when operating

Boiler Sub-Condition	Maximum Effluent Discharge (cubic metres/day)	Type of Flow	Unit Discharge Duration
Normal	6.6	Intermittent	14 days
Start-up	210	Intermittent	1 day

Table 3 - PNGS-A, Unit 1, Unit 2, and Lube Oil Tank Farm Spill Containment Oil/Water Separator Effluent Concentration Objective, Sampling and Analysis Requirements

Sampling Point - Oil/Water Separator effluent prior to discharge to the Unit 2 Inactive Drains Sump

Effluent Parameter	Maximum Concentration Objective (mg/L)	Monitoring Frequency	Sample Type
Oil and Grease	15	Quarterly	Grab

Table 4 - PNGS-A Unit 3 and 4 Transformer Spill Containment Oil/Water Separator Effluent Concentration Objective, Sampling and Analysis Requirements

Sampling Point - Oil/Water Separator effluent prior to discharge to the Unit 4 Inactive Drains Sump

Effluent Parameter	Maximum Concentration Objective (mg/L)	Monitoring Frequency	Sample Type
Oil and Grease	15	Quarterly	Grab

Table 5 - Summary of Dikes with contents subject to testing for oil and grease

Dike No.	Dike Containment
1	PNGS-A- Standby Generator Fuel Oil Tank
2	PNGS-B- Standby Generator Fuel Oil Tank
3	PNGS-B- Emergency Water and Power System Fuel Oil Tank
4	PNGS-B- Backup Steam Supply System Fuel Oil Tank
5	PNGS-B- Main and Auxiliary Transformers Dike
6	PNGS-A- Standby Generator
7	PNGS-A- Main and Auxiliary Transformers
8	PNGS-A- Lube Oil Tank Farm

Table 6 - Summary of Dikes with contents subject to testing for sulphite residuals

Dike No.	Dike Containment
9	Dechlorination Unit PA
10	Dechlorination Unit PB

Table 7 - PNGS-A and PNGS-B Inactive Drainage Effluent Concentration Objectives, Sampling and Analysis Requirements

Sampling Point - effluent from Manhole, MH 89, prior to discharge to the Lake Ontario shoreline via Yard Drainage or from the Individual Inactive Drainage Sumps to the CCW Intake Ducts if the discharge via the Old Water Treatment Plant is not being used and provided that all chlorination at the Station is stopped during the time of use of the individual Sump discharge route

Effluent Parameter	Maximum Concentration Objective (mg/L)	Monitoring Frequency	Sample Type
Oil and Grease	15	Quarterly	Grab
Total Residual Chlorine**	0.04	Continuous	On-line
Total Suspended Solids	25	Quarterly	Grab

** The monitoring for Total Residual Chlorine is to be carried out only during the active chlorination period

Table 8 - Standby Generator Effluent Concentration Objective, Sampling and Analysis Requirements

Sampling Point - the effluent from the Oil/Water Separator prior to discharge to Manhole, MH-207

Effluent Parameter	Maximum Concentration Objective (mg/L)	Monitoring Frequency	Sample Type
Oil and Grease	15	Quarterly	Grab

Table 9 - Final Station Discharge Concentration Limits, Sampling and Analysis Requirements including the Heavy Water Upgrader Plant Effluent

Sampling Points - in the PNGS-A* and PNGS-B Outfalls for all parameters except for the Total Residual Chlorine (TRC) concentration which may be measured in the PNGS-A* and PNGS-B Reactor Building Service Water Ducts and used to calculate the outfall TRC concentration

Effluent Parameters	Maximum Concentration (mg/L) and pH Range In Effluent	Monitoring Frequency	Sample Type
Ammonia, unionized***	0.02	Weekly	Composite
Hydrazine	0.1	Weekly	Composite
Morpholine	0.5	Weekly	Composite
Hydrogen ion (pH)***	6.0 – 9.5 pH Units	Weekly	Composite
Total Residual Chlorine	0.01	Continuous*	On-line**

* PNGS-A CCW discharge shall be monitored when in-service

** Monitored during the seasonal zebra mussel chlorination period only

*** Monitoring is required when electrode boiler is in use or have discharges. In the case when PNGS-A Outfall sampler is not in service during operation of electrode boilers, backup samples can be obtained upstream from the electrode boiler system to estimate the outfall concentration of the applicable parameters for compliance purpose.

Table 10A* - Final Station Discharge Temperature Limits, Sampling and Analysis Requirements

Sampling Point - in the forebay (intake water) and in the PNGS-A and PNGS-B, CWD Ducts

Parameter	Calendar Period	Daily (24 hour) Average Temperature Limit	Monitoring Frequency	Sample Type
Effluent Temperature	July 1 to Oct. 31 Nov 1 to June 30	36 Degree Celsius 32 Degree Celsius	Continuous Continuous	On-line On-line
Temperature Difference (Effluent minus Intake)	Year Round	11 Degree Celsius	Continuous	On-line

* Not applicable to PNGS A as Units 1-4 have been permanently shut down. Monitoring/sampling requirements will be reactivated if required.

Table 10B* - Final Station Discharge Temperature Limits, Sampling and Analysis Requirements for an IESO Declared Electricity Supply Emergency Event

Sampling Point - in the forebay (intake water) and in the PNGS-A and PNGS-B, CWD Ducts

Parameter	Calendar Period	Daily (24 hour) Average Temperature Limit	Monitoring Frequency	Sample Type
Effluent Temperature	July 1 to Oct 31	37 Degree Celsius	Continuous	On-line
Temperature Difference	July 1 to Oct 31	11 Degree Celsius	Continuous	On-line

* Not applicable to PNGS A as Units 1-4 have been permanently shut down. Monitoring/sampling requirements will be reactivated if required.

Table 10C* - Final Station Discharge Temperature Limits, Sampling and Analysis Requirements for an Algae Event

Sampling Point - in the forebay (intake water) and in the PNGS-A and PNGS-B, CWD Ducts

Parameter	Calendar Period	Daily (24 hour) Average Temperature Limit	Monitoring Frequency	Sample Type
Effluent Temperature	July 1 to Dec 31	37 Degree Celsius	Continous	On-line
Temperature Difference	July 1 to Dec 31	16 Degree Celsius	Continous	On-line

* Not applicable to PNGS A as Units 1-4 have been permanently shut down. Monitoring/sampling requirements will be reactivated if required.

Table 11* - Boiler Blowdown Effluent Concentration Limits, Sampling and Analysis Requirements

Sampling Points - at the blowdown piping/valves for all Boilers

Effluent Parameters	Maximum Concentration Limits (mg/L) in Boiler/Feedwater Effluents by Reactor Unit Condition		Monitoring Frequency	Sample Type
	Standard	Non-standard/ Transient/ Shutdown		
Total Ammonia	5	100	Monthly**	Grab
Hydrazine	1	200	Monthly**	Grab
Morpholine	50	50	Monthly**	Grab
Hydrogen Ion (pH)	-	-	Monthly**	Grab

* Not applicable to PNGS A as Units 1-4 have been permanently shut down and boilers have been drained.

** The Monitoring Frequency and Sample Type in Table 11 refer to required monitoring of boiler blowdown effluent under Standard conditions of operation. For Non-Standard/Transient/Shutdown Reactor Unit operation sampling see Subsection (19) below.

Table 12 - Stand-by Boiler Blowdown Effluent Concentration Limits, Sampling and Analysis Requirements

Sampling Point - at the Boiler blowdown piping/valves

Effluent Parameter	pH Range and Maximum Concentrations (mg/L) in the Effluent under Normal and Start-up Conditions	Monitoring Frequency	Sample Type
Hydrazine	0.01	Daily	Grab
Morpholine	2	Daily	Grab
Unionized Ammonia	0.02	Daily	Grab
Hydrogen Ion (pH)	6.0 to 9.5 pH Units	Daily	Grab

Table 13 - Final Heavy Water Upgrader Plant Discharge Sampling and Analysis Requirements

Sampling Point - effluent from Manhole 164

Effluent Parameters	Monitoring Frequency	Sample Type
Total Ammonia	SA	Grab
Hydrazine	SA	Grab
Morpholine	SA	Grab
Hydrogen Ion (pH)	SA	Grab

Schedule C

Limited Operational Flexibility Criteria for Modifications to Works

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

    a. Sewage Pumping Stations

        i. Alter pumping capacity by adding or replacing equipment where new equipment is located within an existing sewage treatment plant site or an existing sewage pumping station site, provided that the modifications do not result in an increase of the sewage treatment plant Rated Capacity and the existing flow process and/or treatment train are maintained, as applicable.

        ii. Forcemain relining and replacement with similar pipe size where the nominal diameter is not greater than 1,200mm.

    b. Sewage Treatment Process

        i. Installing additional chemical dosage equipment including replacing with alternative chemicals for pH adjustment or coagulants (non-toxic polymers) provided that there are no modifications of treatment processes or other modifications that may alter the intent of operations and may have negative impacts on the effluent quantity and quality.

        ii. Expanding the buffer zone between a sanitary sewage lagoon facility or land treatment area and adjacent uses provided that the buffer zone is entirely on the proponent's land.

        iii. Optimizing existing sanitary sewage lagoons with the purpose to increase efficiency of treatment operations provided that existing sewage treatment plant rated capacity is not exceeded and where no land acquisition is required.

        iv. Optimizing existing sewage treatment plant equipment with the purpose to increase the efficiency of the existing treatment operations, provided that there are no modifications to the Works that result in an increase of the approved Rated Capacity, and may have adverse effects to the effluent quality or location of the discharge.

        v. Replacement, refurbishment of previously approved equipment in whole or in part with Equivalent Equipment, like-for-like of different make and model, provided that the firm capacity, reliability, performance standard, level of quality and redundancy of the group of equipment is kept the same. For clarity purposes, the following equipment can be considered under this provision: pumps, screens, grit separators, blowers, aeration equipment, sludge

thickeners, dewatering equipment, UV systems, chlorine contact equipment, bio-disks, and sludge digester systems.

c. Sewage Treatment Plant Outfall

    i. Replacement of discharge pipe with similar pipe size provided that the outfall location is not changed.

d. Stormwater Management System

    i. Modifications of Works discharging via existing outfalls to Lake Ontario within the existing approved site drainage area shall be subject to the following limitations:

        - any increase of the average level of imperviousness established in the previously approved design shall not exceed 5%; and

        - Stormwater peak discharge rates towards an existing Lake Ontario outfall resulting from modifications in accordance with this condition shall not exceed the available hydraulic capacity of the receiving storm sewer system established in the previously approved design or subsequent changes made under Limited Operational Flexibility.

    ii. Installation of new oil grit separators.

    iii. Additional Works servicing roads or temporary laydown areas within the existing approved drainage area for the collection, transmission, treatment and disposal of stormwater towards a previously approved outlet, shall be subject to the following limitations:

        - Works shall not service a drainage area exceeding 2 hectares.

        - Works may include storm sewers, culverts, ditches and enhanced grassed swales as well as associated appurtenances as defined in O.Reg. 525/98.

        - Works shall be designed to provide Enhanced Level treatment.

e. Sanitary Sewers

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

f. Pilot Systems

    i. Installation of pilot systems for new or existing technologies provided that:

        - any effluent from the pilot system is discharged to the inlet of the sewage treatment

plant or hauled off-site for proper disposal,

- any effluent from the pilot system discharged to the inlet of the sewage treatment plant or sewage conveyance system does not significantly alter the composition/concentration of the influent sewage to be treated in the downstream process; and that it does not add any inhibiting substances to the downstream process, and

- the pilot system's duration does not exceed a maximum of two years; and a report with results is submitted to the Director and District Manager three months after completion of the pilot project.

2. Works that are exempt from section 53 of the OWRA by O. Reg. 525/98 continue to be exempt and are not required to follow the notification process under this Limited Operational Flexibility.

3. Normal or emergency operational modifications, such as repairs, reconstructions, or other improvements that are part of maintenance activities, including cleaning, renovations to existing approved Works equipment, provided that the modification is made with Equivalent Equipment, are considered pre-approved.

4. The modifications noted in section (3) above are <u>not</u> required to follow the notification protocols under Limited Operational Flexibility, provided that the number of pieces and description of the equipment as described in the Approval does not change.

Ontario

Ministry of the Environment, Conservation and Parks

Form 1
Notice of Modification to Sewage Works

RETAIN COPY OF COMPLETED FORM AS PART OF THE ECA AND SEND A COPY TO THE DITRICT MANAGER.

Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility

(Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)

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

ECA Owner	Municipality

Part 2: Description of the modifications as part of the Limited Operational Flexibility

(Attach a detailed description of the sewage works)

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

Part 3 – Declaration by Professional Engineer

I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:
1. Has been prepared or reviewed by a Professional Engineer who is licensed to practice in the Province of Ontario;
2. Has been designed in accordance with the Limited Operational Flexibility as described in the ECA;
3. Has been designed consistent with Ministry's Design Guidelines, adhering to engineering standards, industry's best management practices, and demonstrating ongoing compliance with s.53 of the Ontario Water Resources Act; and other appropriate regulations.

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

Name (Print)	PEO License Number

Signature	Date (mm/dd/yy)

Name of Employer

Part 4 – Declaration by Owner

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

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

Name of Owner Representative (Print)	Owner representative's title (Print)

Owner Representative's Signature	Date (mm/dd/yy)

EPB Form

Schedule D

Notice due to MISA Revocation

This notice is to provide for the substantially equivalent requirements that were set out in Ontario Regulation 215/95 as it read prior to its revocation on July 1, 2021 such that there is a continued protection of the environment. This notice forms part of this Approval.

This Schedule applies both to effluent streams that discharge continuously and to effluent streams that discharge intermittently.

This Schedule shall come into force on the day it is issued.

For the purpose of this Schedule D, the following definitions apply:

1. "Building Effluent" means effluent that has been collected within a building from equipment drains, floor drains or trenches, whether or not it is combined with cooling water;

2. "Building Effluent Monitoring Stream" means a building effluent stream on which a sampling point is maintained as referenced under Condition 4 of Schedule D;

3. "Building Effluent Sampling Point" means a sampling point maintained on a building effluent stream as referenced under Condition 4 of Schedule D;

4. "Building Parameter" means a parameter that is listed in Condition 24(1) of Schedule D;

5. "Event Process Effluent Monitoring Stream" means an event process effluent stream on which a sampling point is maintained as referenced under Condition 4 of Schedule D;

6. "Event Process Effluent Sampling Point" means a sampling point maintained on an event process effluent stream under Condition 4 of Schedule D;

7. "Limited Parameter",

    a. means a parameter for which a limit is specified in the Table titled “Types of Non-event Process Effluent Streams, Limits, Monitoring Frequency” in **Appendix A** of this Schedule, and

    b. means a parameter for which a limit is specified in the Table titled “Types of Event Process Effluent Streams, Limits, Monitoring Frequency” in **Appendix B** of this Schedule;

8. "Non-event Process Effluent Monitoring Stream" means a Non-event Process Effluent Stream on which a sampling point is maintained under Condition 4 of Schedule D;

9. "Non-event Process Effluent Sampling Point"means a sampling point maintained on a Non-event Process Effluent Stream under Condition 4 of Schedule D;

10. "Pick Up" means pick up for the purpose of storage, including storage within an automatic sampling device, and transportation to and analysis at a laboratory;

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

12. "Process Change" means a change in equipment, production processes, process materials or treatment processes;

13. "Quarter" means all or part of a period of three consecutive months beginning on the first day of January, April, July or October;

14. "Semi-annual Period" means all or part of a period of six (6) months beginning on the first day of January or July;

15. "Storm Water Effluent" means run-off from a storm event or thaw that is not used in any industrial process.

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

TERMS AND CONDITIONS

1. GENERAL

1. The following are types of **non-event process** effluent streams:

   a. a stream of effluent that is discharged from a water treatment plant at the Plant, whether or not it is combined with cooling water or Storm Water Effluent **(WTPE)**.

2. The following are types of **event process** effluent streams:

   a. a stream of effluent that is discharged from a radioactive liquid waste management system tank at the Plant, whether or not it is combined with cooling water or Storm Water Effluent **(RLWMSTE)**.

   b. a stream of effluent that results from any cleaning or maintenance operations at the Plant, whether or not it is combined with cooling water or Storm Water Effluent **(ECE)**.

   c. a stream of effluent that is discharged from an oily water separator on other than a continuous basis at the Plant, whether or not it is combined with cooling water or Storm Water Effluent **(OWSE)**.

3. Despite paragraph (c) of subsection (2) of this condition, a stream of effluent that is discharged from an oily water separator and consists only of Storm Water Effluent is not a type of non-event process effluent or event process effluent stream.

2. BYPASSES

1. The Owner shall not permit effluent that would ordinarily flow past a sampling point maintained under this Schedule 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.

3. SAMPLING AND ANALYTICAL PROCEDURES

1. The Owner shall carry out the maintenance of sampling point obligations of this Schedule and the sampling and analysis obligations of this Schedule, including quality control sampling and analysis obligations, in accordance with the procedures described in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time.
2. The Owner shall maintain the sampling equipment used at the Owner's Plant for sampling required by this Schedule in a way that ensures that the samples collected at the Plant under this Schedule accurately reflect the level of discharge of each Limited Parameter and Building Parameter from the Plant.

4. SAMPLING POINTS

1. The Owner shall maintain a sampling point on each non-event process effluent stream and event process effluent stream at the Owner's Plant, as necessary so that the concentrations determined under Condition 8 and 9 of Schedule D and the Plant loadings calculated under Condition 10 and 11 of Schedule D for each limited parameter accurately reflect the level of discharge of each such parameter from the Plant.

2. If circumstances change so that a new sampling point is necessary at a Owner's Plant in order to permit the calculation of concentrations under Condition 8 and 9 of Schedule D and the calculation of loadings under Condition 10 and 11 of Schedule D for each Limited Parameter that accurately reflect the level of discharge of each such parameter from the Plant, the Owner shall, within thirty (30) days of the change, establish the new sampling point and notify the District Manager in writing.

3. The Owner may, after notifying the District Manager in writing, eliminate a sampling point maintained under subsection (1) or established under subsection (2) of this condition if the sampling point is no longer necessary to permit the calculation of concentrations under Condition 8 and 9 of Schedule D and the calculation of loadings under Condition 10 and 11 of Schedule D for each Limited Parameter that accurately reflect the level of discharge of each such parameter from the Plant.

4. For the purposes of this condition, except for subsection (5) of this condition, a concentration for a parameter or a loading for a parameter that is based on analytical results that are significantly affected by dilution or masking due to the merging of streams upstream of a sampling point at the Plant is not a concentration or a loading that accurately reflects the level of discharge of the parameter from the Plant.

5. The Owner shall maintain a sampling point on each Building Effluent stream at the Owner's Plant, as necessary so that no Building Effluent is discharged from the Plant to surface water without flowing past a sampling point.

5. REPORTS ON SAMPLING POINTS

1. The Owner shall keep an updated list and plot plan showing the sampling points maintained under this Schedule at the Owner's Plant and submit to the Ministry upon request.

6. USE OF SAMPLING POINTS

1. Except as permitted under Conditions 18, 20, 21 and 23 of Schedule D, the Owner shall use the sampling points referenced in this Schedule for all sampling required by this Schedule.

7. CALCULATION OF LOADINGS — GENERAL

1. For the purposes of performing a calculation under Conditions 8 to 12 of Schedule D, 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 Conditions 8 to 12 of Schedule D.

3. The Owner shall ensure that each calculation of a concentration required by Conditions 8 or 9 of Schedule D is performed as soon as reasonably possible after the analytical results on which the calculation is based become available to the Owner.

4. The Owner shall ensure that each calculation of a loading required by Conditions 10, 11 or 12 of Schedule D is performed in time to comply with Condition 32(4) of Schedule D.

8. CALCULATION OF CONCENTRATIONS — NON-EVENT PROCESS EFFLUENT

1. The Owner shall calculate, in milligrams per litre, a monthly average concentration for each Limited Parameter in each Non-event Process Effluent Monitoring Stream of the Owner for each month.

2. For the purposes of subsection (1) of this condition, a monthly average concentration for a parameter for a month is the arithmetic mean of the analytical results obtained for the parameter from the samples collected under Condition 16 or 17 of Schedule D, as the case may be, from the stream for the month.

9. CALCULATION OF CONCENTRATIONS — EVENT PROCESS EFFLUENT

1. The Owner shall calculate, in milligrams per litre, a monthly average concentration for each Limited Parameter in the stream of a type described in paragraph (a) of Condition 1(2) of Schedule D at the Owner's Plant for each month.

2. For the purposes of subsection (1) of this condition, a monthly average concentration for a parameter for a month is the arithmetic mean of the analytical results obtained for the parameter from the samples collected under Condition 18 of Schedule D from the stream or from a tank that discharges into the stream for the month.

10. CALCULATION OF LOADINGS — NON-EVENT PROCESS EFFLUENT

1. The Owner shall calculate, in kilograms, a daily non-event process effluent stream loading for each Limited Parameter in each non-event process effluent monitoring stream of the Owner for each day on which a sample is collected under this Schedule 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 25 of Schedule D, for the stream for the day.

3. The Owner shall calculate, in kilograms, a daily non-event process effluent Plant loading for each Limited Parameter for each day for which the Owner is required to calculate a daily non-event 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 non-event process effluent plant loading for a parameter for a day is the sum, in kilograms, of the daily non-event process effluent stream loadings for the parameter calculated under subsection (1) of this condition for the day.

5. Where the Owner calculates only one daily non-event process effluent stream loading for a parameter for a day under subsection (1) of this condition, the daily non-event process effluent plant loading for the parameter for the day for the purposes of subsection (3) of this condition is the single daily non-event process effluent stream loading for the parameter for the day.

6. The Owner shall calculate, in kilograms, a monthly average non-event process effluent plant loading for each Limited Parameter for each month in which a sample is collected under this

Schedule more than once from a Non-event Process Effluent Monitoring Stream at the Owner's Plant for analysis for the parameter.

7. For the purposes of subsection (6) of this condition, a monthly average non-event process effluent plant loading for a parameter for a month is the arithmetic mean of the daily non-event process effluent plant loadings for the parameter calculated under subsection (3) of this condition for the month.

11. CALCULATION OF LOADINGS — EVENT PROCESS EFFLUENT

1. The Owner shall calculate, in kilograms, a 24-hour event process effluent stream loading for each Limited Parameter in each Event Process Effluent Monitoring Stream of the Owner for each 24-hour period ending at noon in which a sample is collected under this Schedule from the stream or from a tank that discharges into the stream for analysis for the parameter.

2. When calculating an event process effluent 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 24-hour volume of effluent, as determined under Condition 25 of Schedule D, for the stream for the 24-hour period.

3. The Owner shall calculate, in kilograms, a 24-hour event process effluent plant loading for each Limited Parameter for each 24-hour period ending at noon for which the Owner is required to calculate a 24-hour event process effluent stream loading for the parameter under subsection (1) of this condition.

4. For the purposes of subsection (3) of this condition, a 24-hour event process effluent plant loading for a parameter for a 24-hour period ending at noon is the sum, in kilograms, of the 24-hour event process effluent stream loadings for the parameter calculated under subsection (1) of this condition for the period.

5. Where the Owner calculates only one 24-hour event process effluent stream loading for a parameter for a 24-hour period ending at noon under subsection (1) of this condition, the 24-hour event process effluent plant loading for the parameter for the period, for the purposes of subsection (3) of this condition, is the single 24-hour event process effluent stream loading for the parameter for the period.

6. The Owner shall calculate, in kilograms, a monthly average event process effluent stream loading for each Limited Parameter for each Event Process Effluent Monitoring Stream of the type described in paragraph (a) of Condition 1 (2) of Schedule D at the Owner's Plant for each month in which a sample is collected under this Schedule more than once from the stream or from a tank that discharges into the stream for analysis for the parameter.

7. For the purposes of subsection (6) of this condition, a monthly average event process effluent stream loading for a parameter for a stream for a month is the arithmetic mean of the 24-hour

event process effluent stream loadings for the parameter calculated under subsection (1) for the stream for the month.

12. CALCULATION OF LOADINGS — BUILDING EFFLUENT

1. The Owner shall calculate, in kilograms, a daily Building Effluent stream loading for each Building Parameter in each Building Effluent Monitoring Stream of the Owner for each day on which a sample is collected under this Schedule 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 25 of Schedule D, for the stream for the day.

3. The Owner shall calculate, in kilograms, a quarterly Building Effluent plant loading for each Building Parameter for each Quarter in which the Owner is required to calculate a daily Building Effluent stream loading for the parameter under subsection (1) of this condition.

4. For the purposes of subsection (3) of this condition, a quarterly effluent plant loading for a parameter for a Quarter is the sum of the daily Building Effluent stream loadings for the parameter calculated under subsection (1) of this condition for the Quarter.

13. PARAMETER LIMITS

1. The Owner shall ensure that each analytical result obtained for each Limited Parameter from each sample collected from each Non-event Process Effluent Monitoring Stream at the Owner's Plant does not exceed the daily concentration limit specified for the parameter in the Table titled "Types of non-event process effluent streams, limits, monitoring frequency" in **Appendix A** of this Owner.

2. The Owner shall ensure that each monthly average concentration calculated for a Limited Parameter under Condition 8(1) of Schedule D in connection with each Non-event Process Effluent Monitoring Stream at the Owner's Plant does not exceed the monthly average concentration limit specified for the parameter in the Table titled "Types of non-event process effluent streams, limits, monitoring frequency" in **Appendix A** of this Schedule.

3. Despite subsections (1) and (2) of this condition, where the non-event process effluent stream is of the type described in paragraph (a) of Condition 1(1) of Schedule D and aluminum-based water treatment chemicals are not used to treat effluent in the water treatment plant that discharges into the stream, the Owner need not ensure,

    a. that the analytical result obtained for the parameter aluminum does not exceed the daily concentration limit specified for the parameter in the Table titled "Types of non-event process effluent streams, limits, monitoring frequency" in **Appendix A** of this Schedule; or

b. that the monthly average concentration calculated for the parameter aluminum does not exceed the monthly average concentration limit specified for the parameter in the Table titled "Types of non-event process effluent streams, limits, monitoring frequency" in **Appendix A** of this Schedule.

4. The Owner shall ensure that each analytical result obtained for each Limited Parameter from each sample collected from each Event Process Effluent Monitoring Stream at the Owner's Plant does not exceed the daily concentration limit specified for the parameter in the Table titled "Types of event process effluent streams, limits, monitoring frequency" in **Appendix B** of this Schedule.

5. The Owner shall ensure that each monthly average concentration calculated for a Limited Parameter under Condition 9 of Schedule D in connection with each Event Process Effluent Monitoring Stream at the Owner's Plant does not exceed the monthly average concentration limit specified for the parameter in the Table titled "Types of event process effluent streams, limits, monitoring frequency" in **Appendix B** of this Schedule.

6. The Owner shall control the quality of each Non-event Process Effluent Monitoring Stream and each Event Process Effluent Monitoring Stream at the Owner's Plant to ensure that the pH value of any sample collected at a Non-event Process Effluent Sampling Point or Event Process Effluent Sampling Point at the Plant is within the range of 6.0 to 9.5.

14. LETHALITY LIMITS

1. The Owner shall control the quality of each Non-event Process Effluent Monitoring Stream, each Event Process Effluent Monitoring Stream and each Building Effluent Monitoring Stream at the Owner's Plant to ensure that each rainbow trout acute lethality test and each *Daphnia magna* acute lethality test performed on any grab sample collected at a Non-event Process Effluent Sampling Point, Event Process Effluent Sampling Point or Building Effluent Sampling Point at the Plant results in mortality for no more than fifty (50) per cent of the test organisms in hundred (100) per cent effluent.

15. MONITORING - GENERAL

1. Despite Condition 16 to 24 of Schedule D, the Owner need not collect samples from any stream at the Owner's Plant on a day on which there is no discharge from any non-event process effluent stream, event process effluent stream or building effluent stream at the Plant.

2. Where the Owner is required by this Schedule to Pick Up a set of samples and analyze it for certain parameters, the Owner shall Pick Up a set of samples sufficient to allow all the analyses to be performed.

3. The Owner shall use all reasonable efforts to ensure that all analyses required by this Schedule are completed as soon as reasonably possible and that the results of those analyses are made available to the Owner as soon as reasonably possible.

4. Subject to subsection (5) of this condition, the Owner shall Pick Up all sets of samples required to be picked up at the Owner's Plant under Conditions 16, 17, 20 and 24 of Schedule D between the hours of 9 a.m. and 12 noon.

5. If the District Manager is satisfied, on the basis of written submissions from the Owner, that the circumstances at the Owner's Plant are such that it would be impractical to Pick Up a set of samples from each sampling point maintained at the Plant under this Schedule within the time period specified in subsection (4), the District Manager may give the Owner a written notice in respect of the Plant, varying the time period specified in subsection (4).

6. Subject to subsections (7) of this condition, where the Owner is required by Conditions 16, 17, 20 or 24 of Schedule D to Pick Up a set of samples, the Owner shall Pick Up a set collected over the 24-hour period immediately preceding the Pick Up.

7. The 24-hour period referred to in subsection (6) of this condition may be shortened or enlarged by up to three hours to permit the Owner to take advantage of the three-hour range specified in subsection (4) of this condition.

16. MONITORING – NON-EVENT PROCESS EFFLUENT – DAILY

1. The Owner shall, on each day, Pick Up a set of samples collected from each Non-event Process Effluent Monitoring Stream at the Owner's Plant and shall analyze each set of samples for the parameters for which the frequency of monitoring, as set out in the Table titled "Types of non-event process effluent streams, limits, monitoring frequency" in **Appendix A** of this Schedule, is daily.
2. The Owner need not meet the requirements of subsection (1) of this condition where it is impossible to do so because of sampling by a provincial officer.

17. MONITORING – NON-EVENT PROCESS EFFLUENT – WEEKLY

1. Subject to subsections (2) to (3) of this condition, the Owner shall, on one day in each week, Pick Up a set of samples collected from each Non-event Process Effluent Monitoring Stream at the Owner's Plant and shall analyze each set of samples for the parameters for which the frequency of monitoring, as set out in the Table titled "Types of non-event process effluent streams, limits, monitoring frequency" in Appendix A of this Schedule, is weekly.
2. Despite subsection (1) of this condition, the Owner need not analyze a sample collected from a stream to which Condition 13 (3) of Schedule D applies for a parameter listed in Condition 13 (3) of Schedule D.

3. There shall be an interval of at least four days between successive Pick Up days at the Plant under subsection (1) of this condition.
4. All samples picked up under subsections (1) of this condition in a week shall be picked up on the same day in the week.

18. MONITORING –EVENT PROCESS EFFLUENT – DAILY AND WEEKLY

1. The Owner shall, in each 24-hour period ending at noon, Pick Up a set of samples collected from each Event Process Effluent Monitoring Stream at the Owner's Plant and shall analyze each set of samples for the parameters for which the frequency of monitoring, as set out in the Table titled "Types of event process effluent streams, limits, monitoring frequency" in **Appendix B** of this Schedule, is daily.

2. A set of samples collected at a sampling point under subsection (1) of this condition in a 24-hour period ending at noon shall be collected,

   a. throughout the entire 24-hour period, where effluent flows past the sampling point throughout the entire 24-hour period; and

   b. throughout any portions of the 24-hour period during which effluent flows past the sampling point, where effluent does not flow past the sampling point throughout the entire 24-hour period.

3. The Owner shall Pick Up each set of samples collected under subsection (1) of this condition during a 24-hour period by the end of that period.

4. The Owner need not meet the requirements of subsections (1) to (3) of this condition where it is impossible to do so because of sampling by a provincial officer.

5. Subsections (1) to (3) of this condition do not apply in relation to, a sampling point on an Event Process Effluent Monitoring Stream of a type described in paragraph (a) of Condition 1(2) of Schedule D.

6. The Owner shall, during each discharge at the Owner's Plant of effluent from a radioactive liquid waste management system tank at the Owner's Plant into a stream referred to in subsection (5) of this condition, collect a grab sample from the sampling point on the stream.

7. Instead of collecting a grab sample from a sampling point during a discharge as required by subsection (6) of this condition, the Owner may collect a grab sample from the tank immediately before the discharge.

8. The Owner shall combine all grab samples collected during each 24-hour period ending at noon at the Owner's Plant under subsections (6) and (7) of this condition, in proportion to the volumes of the discharges in respect of which the grab samples were collected, and shall immediately Pick Up the combined sample.

9. For the purposes of subsections (11), (12), (14) and (19) of this condition, where only one grab sample is collected at the Owner's Plant under subsections (6) and (7) of this condition during a 24-hour period ending at noon, the single grab sample shall be deemed to be a combined sample

prepared under subsection (8) of this condition.

10. The Owner shall Pick Up a single grab sample to which subsection (9) applies by noon of the 24-hour period.

11. The Owner shall analyze each combined sample prepared under subsection (8) for the parameters for which the frequency of monitoring, as set out in the Table titled "Types of event process effluent streams, limits, monitoring frequency" in **Appendix B** of this Schedule described in paragraph (a) of Condition 1(2) of Schedule D, is daily.

12. Once in each week, the Owner shall analyze one combined sample prepared under subsection (8) of this condition for the parameters for which the frequency of monitoring, as set out in the Table titled "Types of event process effluent streams, limits, monitoring frequency" in **Appendix B** of this Schedule described in paragraph (a) of Condition 1(2) of Schedule D, is weekly.

13. Subsection (12) of this condition does not apply to require analysis for the parameter oil and grease.

14. There shall be an interval of at least four full periods of 24 hours ending at noon between Pick Up times at the Plant of the combined samples used for successive weekly analyses under subsection (12) of this condition.

15. Once in each week, throughout one 24-hour period ending at noon, the Owner shall collect a duplicate sample for each grab sample collected under subsections (6) and (7) of this condition, shall combine the duplicate grab samples in equal volumes and shall immediately Pick Up the combined sample.

16. For the purposes of subsection (15) of this condition, the Owner shall not choose a 24-hour period during which only one grab sample is collected under subsections (6) and (7) of this condition at the Owner's Plant.

17. The Owner shall analyze each combined sample prepared under subsection (15) of this condition for the parameter oil and grease.

18. There shall be an interval of at least four full periods of 24 hours ending at noon between Pick Up times at the Plant of the combined samples used for successive analyses under subsection (17) of this condition.

19. All combined samples picked up under subsection (15) of this condition in a week and all combined samples picked up in the week to meet the analysis requirements of subsection (12) of this condition shall be picked up on the same day in the week.

19. MONITORING – NON-EVENT PROCESS EFFLUENT – QUALITY CONTROL

1. On one day in each year, on a day on which samples are picked up at the Plant under Condition 17 (1) of Schedule D, the Owner shall collect and Pick Up a duplicate sample for each sample picked up on that day under Condition 17 (1) of Schedule D at one Non-event Process Effluent Sampling Point at the Owner's Plant and shall analyze each duplicate sample for the parameters for which the frequency of monitoring, as set out in the Table titled "Types of non-event process effluent streams, limits, monitoring frequency" in **Appendix A** of this Schedule, is daily.

2. On one day in each year, on the day on which samples are picked up at the Plant under subsection (1) of this condition, the Owner shall collect and Pick Up a duplicate sample for each sample picked up on that day under Condition 17 (1) of Schedule D at one Non-event Process Effluent Sampling Point at the Owner's Plant and shall analyze each duplicate sample for the parameters for which the frequency of monitoring, as set out in the Table titled "Types of non-event process effluent streams, limits, monitoring frequency" in **Appendix A** of this Schedule, is weekly.

3. In each year, the Owner shall use the same Non-event Process Effluent Sampling Point for the purposes of subsections (1) and (2) of this condition.

4. The Owner shall prepare a travelling blank and travelling spiked blank sample for each sample for which a duplicate sample is picked up at the Plant under subsection (1) of this condition and shall analyze the travelling blank and travelling spiked blank samples in accordance with the directions set out in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time.

5. There shall be an interval of at least six months between successive Pick Up days at the Plant under subsection (1) of this condition.

20. MONITORING – NON-EVENT AND EVENT PROCESS EFFLUENT – pH MEASUREMENT

1. The Owner shall, on each day during the time period applicable to the Plant under Condition 15(4) or (5) of Schedule D, collect a grab sample from each Non-event Process Effluent Monitoring Stream at the Owner's Plant and shall analyze each sample for the parameter pH.

2. The Owner shall, within each 24-hour period beginning with the collection of the first grab sample at the Plant under subsection (1) of this condition on each day, collect two more grab samples from each Non-event Process Effluent Monitoring Stream at the Owner's Plant and shall analyze each sample for the parameter pH.

3. There shall be an interval of at least four hours between each of the three collections at a stream under subsections (1) and (2) of this condition in each 24-hour period.

4. Each grab sample collected under subsections (1) and (2) of this condition shall be picked up within 24 hours of when it was collected.

5. Each grab sample picked up under subsection (4) of this condition shall be analyzed within 24 hours of when it was picked up.

6. Instead of complying with subsections (1) to (4) of this condition with respect to a stream, the Owner may use an on-line analyzer at the sampling point on the stream and analyze the effluent at the sampling point for the parameter pH once in each day during the time period applicable to the Plant under Condition 15(4) or (5) of Schedule D, and two more times in each 24-hour period beginning with the first analysis at the Plant under this subsection in each day.

7. There shall be an interval of at least four hours between each of the three analyses at a sampling point under subsection (6) of this condition in each 24-hour period.

8. The Owner shall, in each 24-hour period ending at noon, collect a grab sample from each Event Process Effluent Monitoring Stream at the Owner's Plant and shall analyze each sample for the parameter pH.

9. For the purposes of subsection (8) of this condition, in relation to a stream of the type described in paragraph (a) of Condition 1(2) of Schedule D, the Owner may collect a grab sample from a radioactive liquid waste management system tank immediately before a discharge into the stream instead of collecting a grab sample from the sampling point on the stream.

21. MONITORING – ACUTE LETHALITY TESTING – RAINBOW TROUT

1. Where the Owner is required by this condition to perform a rainbow trout acute lethality test, the Owner shall perform the test according to the procedures described in the Environment and Climate Change Canada publication entitled "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout", as amended from time to time.

2. Each rainbow trout acute lethality test required by this condition shall be carried out as a single concentration test using hundred (100) per cent effluent.

3. On one day in each month, on a day on which samples are picked up at the Plant under Condition 17(1) of Schedule D the Owner shall collect and immediately Pick Up a grab sample at each Non-event Process Effluent Sampling Point, at each Event Process Effluent Sampling Point other than a sampling point on an event process effluent stream of the type described in paragraph (a) of Condition 1(2) of Schedule D and at each sampling point on the event process effluent stream of the type described in paragraph (a) of Condition 1(2) of Schedule D at the Owner's Plant and shall perform a rainbow trout acute lethality test on each sample.

4. There shall be an interval of at least fifteen (15) days between successive Pick Up days at the Plant under subsection (3) of this condition.

5. All samples picked up under subsection (3) of this condition in a month shall be picked up on the same day in the month.

6. Where the Owner has performed tests under subsection (3) of this condition for twelve (12) consecutive months, in accordance with MISA Regulation 215/95 before this amendment notice is issued, 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 Owner is relieved of the obligations under subsection (3) 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.

7. Samples picked up at the Plant under subsection (6) of this condition shall be picked up on a day on which samples are picked up at the Plant under subsection (3) of this condition.

8. If no samples are being picked up at the Plant under subsection (3) of this condition during a Quarter, samples picked up at the Plant during the Quarter under subsection (6) of this condition shall be picked up on a day on which samples are picked up at the Plant under Condition 17(1) of Schedule D.

9. There shall be an interval of at least forty-five (45) days between successive Pick Up days at the Plant under subsection (6) of this condition.

10. All samples picked up under subsection (6) of this condition in a Quarter shall be picked up on the same day in the Quarter.

11. If a rainbow trout acute lethality test performed under subsection (6) 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 (10) of this condition cease to apply in respect to samples from that sampling point, and the Owner shall instead comply with the requirements of subsection (3) of this condition relating to the sampling point, until the tests performed under subsection (3) 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.

12. The Owner shall notify the District Manager in writing of any change in the frequency of acute lethality testing under this Schedule at the Owner's Plant, within thirty (30) days after the day on which the change begins.

13. Instead of collecting a grab sample from the sampling point on the event process effluent stream of the type described in paragraph (a) of Condition 1(2) of Schedule D as required by subsection (3) of this condition, the Owner may collect a grab sample from a radioactive liquid waste management system tank at the Plant immediately before a discharge into the stream.

14. On one day in each Quarter, the Owner shall collect and immediately Pick Up a grab sample at each Building Effluent Sampling Point at the Owner's Plant and shall perform a rainbow trout acute lethality test on each sample.

15. Each sample collected under subsection 14 of this condition from a sampling point shall be

collected on a day on which a sample is collected from that sampling point under Condition 24(1) of Schedule D.

22. MONITORING – ACUTE LETHALITY TESTING – *DAPHNIA MAGNA*

1. Where the Owner is required by this condition to perform a *Daphnia magna* acute lethality test, the Owner shall perform the test according to the procedures described in the Environment and Climate Change Canada publication entitled "Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna* ", as amended from time to time.

2. Conditions 21(2) to (15) of Schedule D 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* .

3. The Owner shall Pick Up each set of samples required to be collected from a sampling point at the Owner's Plant under this condition on a day on which the Owner collects a sample from the sampling point under Condition 21 of Schedule D, to the extent possible having regard to the frequency of monitoring required at the sampling point under this section and Condition 21 of Schedule D.

23. MONITORING – CHRONIC TOXICITY TESTING – FATHEAD MINNOW AND *CERIODAPHNIA DUBIA*

1. Where the Owner is required to perform a seven-day fathead minnow growth inhibition test, the Owner shall perform the test according to the procedure described in the Environment and Climate Change Canada publication entitled "Biological Test Method: Test of Larval Growth and Survival Using Fathead Minnows", as amended from time to time.

2. Where the Owner is required to perform a seven-day *Ceriodaphnia dubia* reproduction inhibition and survivability test, the Owner shall perform the test according to the procedure described in the Environment Canada publication entitled "Biological Test Method: Test of Reproduction and Survival Using the Cladoceran *Ceriodaphnia dubia* ", as amended from time to time.

3. On one day in each Semi-annual Period, on a day on which samples are picked up at the Plant under Condition 17(1) of Schedule D the Owner shall collect and immediately Pick Up a grab sample from each Non-event Process Effluent Sampling Point at the Owner's Plant and shall perform a seven-day fathead minnow growth inhibition test and a seven-day *Ceriodaphnia dubia* reproduction inhibition and survivability test on each sample.

4. On one day in each Semi-annual Period, on a day on which samples are picked up at the Plant for analysis under Condition 18(12) of Schedule D the Owner shall,

   a. collect and immediately Pick Up a grab sample from the event process effluent stream of the

type described in paragraph (a) of Condition 1(2) of Schedule D at the Owner's Plant; and

b. perform a seven-day fathead minnow growth inhibition test and a seven-day *Ceriodaphnia dubia* reproduction inhibition and survivability test on the sample.

5. Instead of collecting a grab sample from the sampling point on the stream as required by subsection (4) of this condition, the Owner may collect a grab sample from a **radioactive liquid waste management** system tank at the Plant immediately before a discharge into the stream.

6. There shall be an interval of at least ninety (90) days between successive Pick Up days at the Plant under subsections (3) and (4) of this condition.

7. All samples picked up under subsections (3) and (4) of this condition in a Semi-annual Period shall be picked up on the same day in the Semi-annual Period.

8. The Owner need not collect a sample from a sampling point in accordance with subsections (3) and (4) 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 Owner's Plant result in mortality for no more than fifty (50) per cent of the test organisms in hundred (100) per cent effluent.

24. MONITORING – BUILDING EFFLUENT – QUARTERLY

1. The Owner shall, on one day in each Quarter, Pick Up a grab sample at each Building Effluent Sampling Point at the Owner's Plant and shall analyze each sample for the following parameters:

   a. Total Suspended Solids (TSS), referred to as Analytical Test Group 8 in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time.

   b. Oil and grease, referred to in Analytical Test Group 25 in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time.

2. There shall be an interval of at least forty-five (45) days between successive Pick Up days at the Plant under subsection (1).

25. FLOW MEASUREMENT

1. For the purposes of this condition, a volume of effluent for a non-event process effluent stream for a day is the volume that flowed past the sampling point maintained under Condition 4 of Schedule D on the stream during the 24-hour period preceding the Pick Up of the first sample picked up from the stream for the day.

2. For the purposes of this condition, a volume of effluent for a Building Effluent stream for a day is the volume that flowed past the sampling point maintained under Condition 4 of Schedule D on the stream during a 24-hour period beginning at any time between 9 a.m. and noon on that day.

3. For the purposes of this Condition, a 24-hour volume of effluent for an event process effluent stream for a 24-hour period ending at noon is the volume that flowed past the sampling point maintained under Condition 4 of Schedule D on the stream during the 24-hour period.

4. The Owner shall determine in cubic metres a daily volume of effluent for each non-event process effluent stream at the Owner's Plant for each day on which a sample is collected under this Schedule from the stream, by integration of continuous flowrate measurements.

5. Despite subsection (4) of this condition, where a non-event process effluent 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 individual batch volume measurements.

6. The Owner shall use flow measurement methods that allow the daily volumes for non-event process effluent streams to be determined to an accuracy of within plus or minus fifteen (15) per cent.

7. The Owner shall determine in cubic metres a 24-hour volume of effluent for each event process effluent stream at the Owner's Plant for each 24-hour period ending at noon in which a sample is collected under this Schedule from the stream or from a tank that discharges into the stream.

8. For the purposes of subsection (7) of this condition, the Owner need not use continuous flowrate measurements.

9. The Owner shall use flow measurement methods that allow the daily volumes for event process effluent streams to be determined to an accuracy of within plus or minus fifteen (15) per cent.

10. The Owner shall determine in cubic metres a daily volume of effluent for each Building Effluent Monitoring Stream at the Owner's Plant for each day.

11. The Owner shall use flow measurement methods that allow the daily volumes for Building Effluent streams determined under subsection (10) of this condition to be determined to an accuracy of within plus or minus twenty (20) per cent.

12. The Owner shall determine by calibration or confirm by means of a certified report of a registered professional engineer of the Province of Ontario that,

    a. each flow measurement method used under subsections (4) and (5) of this condition meets the accuracy requirements of subsection (6) of this condition;

b. each flow measurement method used under subsections (7) and (8) of this condition meets the accuracy requirements of subsection (9) of this condition; and

c. each flow measurement method used under subsection (10) of this condition meets the accuracy requirements of subsection (11) of this condition.

13. 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 registered professional engineer of the Province of Ontario that each new or altered flow measurement method meets the accuracy requirements of subsection (6), (9), or (11) 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.

14. 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.

15. 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.

26. CALCULATION OF STREAM AND PLANT VOLUMES

1. The Owner shall calculate, in cubic metres, a daily non-event process effluent plant volume for each day.

2. For the purposes of subsection (1) of this condition, a non-event process effluent plant volume for a day is the sum of the daily non-event process effluent volumes for each Non-event Process Effluent Monitoring Stream determined under Condition 25 of Schedule D for the day.

3. The Owner shall calculate, in cubic metres, a monthly average non-event process effluent plant volume for each month by taking the arithmetic mean of the daily non-event process effluent plant volumes for each Non-event Process Effluent Monitoring Stream calculated under subsection (1) for the month.

4. The Owner shall calculate, in cubic metres, a monthly average volume for each non-event process effluent stream at the Owner's Plant for each month, by taking the arithmetic mean of the daily volumes determined under Condition 25 of Schedule D for the stream for the month.

5. The Owner shall calculate, in cubic metres, a monthly average volume for each event process effluent stream of the type described in paragraph (a) of Condition 1(2) of Schedule D at the Owner's Plant for each month by taking the arithmetic mean of the 24-hour volumes determined under Condition 25 of Schedule D for each 24-hour period ending at noon during which a sample is collected from the stream, or from a tank that discharges into the stream, in the month.

6. The Owner shall calculate, in cubic metres, a monthly average volume for each Building Effluent stream at the Owner's Plant for each month, by taking the arithmetic mean of the daily volumes determined under Condition 25 of Schedule D for the stream for the month.

27. STORMWATER 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. Despite subsection (1) of this condition, instead of analysing storm water samples for the parameters referred to in the protocol cited in subsection (1) of this condition, the Owner shall analyze storm water samples for the following parameters:

   a. Hydrogen ion (pH), referred to as Analytical Test Group 3 in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time.

   b. Total Suspended Solids (TSS), referred to as Analytical Test Group 8 in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time.

   c. Iron, referred to in Analytical Test Group 9a in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time.

   d. Oil and grease, referred to in Analytical Test Group 25 in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time.

   e. Polychlorinated Biphenyls, referred to as Analytical Test Group 27 in the Ministry publication entitled "Protocol for the Sampling and Analysis of Industrial/Municipal Wastewater", as amended from time to time.

3. 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) of this subsection.

4. The Owner shall ensure that a copy of each study completed under this section is available to

Ministry staff at the Owner's Plant on request during the Plant's normal office hours.

28. RECORD KEEPING

1. The Owner shall keep records of all analytical results obtained under Conditions 16, 17, 18, 20 and 24 of Schedule D, all calculations performed under Conditions 8, 9, 10, 11 and 12 of Schedule D and all determinations and calculations made or performed under Condition 25 and 26 of Schedule D.

2. The Owner shall keep records of all sampling and analytical procedures used in meeting the requirements of Condition 3 of Schedule D, 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 Condition 19 and 21 to 26 of Schedule D.

4. The Owner shall keep records of all maintenance and calibration procedures performed under Condition 25 of Schedule D.

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 Schedule, 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 Non-event Process Effluent Sampling Point or an Event Process Effluent Sampling Point 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 redirections of or changes in the character of effluent streams that affect the quality of effluent at any sampling point maintained under this Schedule at the Owner's Plant.

8. The Owner shall keep records of the location of each sampling point maintained at the Owner's Plant under Condition 4 of Schedule D.

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.

29. RECORD 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 concentrations determined under Conditions 8 and 9 of Schedule D;

   b. a summary of plant loadings calculated under Conditions 10, 11 and 15 of Schedule D;

   c. a summary of the results of monitoring performed under Conditions 16, 17, 18 and 20 to 24 of Schedule D;

   d. a summary of volumes determined under Condition 25(7) of Schedule D and calculations performed under Conditions 26(4), (5) and (6) of Schedule D;

   e. a summary of the concentrations or other results that exceeded a limit prescribed by Condition 13 or 17 of Schedule D; and

   f. a summary of the incidents in which effluent that would ordinarily flow past a non-event process effluent sampling or an Event Process Effluent Sampling Point 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, upon request, with a copy of any report that the Owner has prepared under subsection (1) of this condition.

30. REPORTS TO THE District Manager GENERAL

1. The Owner shall notify the District Manager and the Director in writing of any change of name or ownership of the Owner's Plant occurring within thirty (30) days after the end of the month in which the change occurs.

2. The Owner shall notify the District Manager in writing of any Process Change or redirection of or change in the character of an effluent stream that affects the quality of effluent at any sampling point at the Owner's Plant, within thirty (30) days of the change or redirection.

3. The Owner need not comply with subsection (2) of this condition where the effect of the change or redirection on effluent quality is of less than one week's duration.

31. REPORTS TO THE District Manager

1. The Owner shall report any incident in which effluent that would ordinarily flow past a Non-event Process Effluent Sampling Point or an Event Process Effluent Sampling Point is

discharged from the Owner's Plant without flowing past that sampling point.

2. The Owner shall report any concentration or other result that exceeds a limit prescribed by Condition 13 or 14 of Schedule D.

3. A report required under subsection (1) or (2) of this condition shall be given orally, as soon as reasonably possible, and in writing, as soon as reasonably possible.

32. QUARTERLY REPORTS TO THE District Manager

1. No later than forty-five (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 (9) of this condition.

2. A report under this condition shall be submitted to the District Manager in the manner and form the District Manager specifies from time to time.

3. A report under this condition shall include all information included in a report given under Condition 31 of Schedule D during the Quarter.

4. The Owner shall report,

   a. for each month in the Quarter, the monthly average plant loadings and the highest and lowest daily plant loadings calculated for each Limited Parameter under Condition 10 of Schedule D;

   b. each 24-hour event process effluent stream loading calculated for each Limited Parameter under Condition 11(1) of Schedule D that is based on analytical results obtained from a sample collected during the Quarter;

   c. each 24-hour event process effluent plant loading calculated for each Limited Parameter under Condition 11(3) of Schedule D that is based on 24-hour event process effluent stream loadings required to be reported under clause (b) in respect of the Quarter;

   d. for each month in the Quarter, each monthly average event process effluent stream loading calculated for each Limited Parameter under Condition 11(6) of Schedule D; and

   e. each quarterly building effluent plant loading calculated under Condition 12 of Schedule D for each Building Parameter for the Quarter.

5. The Owner shall report, for each month in the Quarter, the monthly average concentrations calculated under Conditions 8 and 9 of Schedule D and the highest and lowest analytical results obtained under Conditions 16, 17, and 18 of Schedule D for each Limited Parameter in each Non-event Process Effluent Monitoring Stream and Event Process Effluent Monitoring Stream

at the Owner's Plant.

6. The Owner shall report, for each month in the Quarter,

   a. each 24-hour volume determined for a stream, other than a stream described in paragraph (a) of Condition 1(2) of Schedule D, under Condition 25(7) of Schedule D for a 24-hour period ending at noon during which a sample is collected from the stream in the month;

   b. the highest and lowest 24-hour volumes determined under Condition 25(7) of Schedule D for the stream described in paragraph (a) of Condition 1(2) of Schedule D of all the 24-hour volumes determined for the stream under Condition 25(7) of Schedule D for 24-hour periods ending at noon during which a sample is collected from the stream in the month;

   c. the monthly average non-event process effluent plant volume and the highest and lowest daily non-event process effluent plant volumes as calculated under Condition 26 of Schedule D; and

   d. the monthly average volume for each event process effluent stream of the type described in paragraph (a) of Condition 1(2) at the Owner's Plant, as calculated under Condition 26 of Schedule D.

7. The Owner shall report, for each month in the Quarter, the monthly average volume for each Building Effluent Monitoring Stream at the Owner's Plant, as calculated under Condition 26 of Schedule D.

8. The Owner shall report, for each month in the Quarter, the highest and lowest pH results obtained under Condition 20 of Schedule D for each Non-event Process Effluent Monitoring Stream and Event Process Effluent Monitoring Stream at the Owner's Plant.

9. The Owner shall report, for each day in each month in the Quarter, the number of days on which effluent is discharged from,

   a. each Non-event Process Effluent Monitoring Stream at the Owner's Plant;

   b. each Event Process Effluent Monitoring Stream at the Owner's Plant; and

   c. each Building Effluent Monitoring Stream at the Owner's Plant.

33. REPORTS TO THE District Manager – CHRONIC TOXICITY TESTING

1. A report under this condition shall be submitted to the District Manager in the manner and form the District Manager specifies from time to time.

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 five (25) per cent reduction in growth or reproduction would occur.

34. CONFLICT BETWEEN APPROVAL

1. Where there is conflict between a limit in this Schedule and a limit in the Terms and Conditions of the body of this Approval for Plant for a given parameter, the most stringent of the two limits shall apply.

APPENDIX A

TYPES OF NON-EVENT PROCESS EFFLUENT STREAMS, LIMITS, MONITORING FREQUENCY

TABLE:

PLANT - PICKERING NGS - A and B

Item	Analytical Test Group	Column 1 Parameter	Column 2 Types of Non-Event Process Effluent Streams	Column 3 Monitoring Frequency	Column 4 Daily Concentration Limit mg/L	Column 5 Monthly Average Concentration Limit mg/L
1.	8	Total Suspended Solids	WTPE	Daily	70.0	25.0
2.	9	Aluminum	WTPE	Weekly	13.0	4.50
3.	9a	Iron	WTPE	Weekly	2.50	1.0

Explanatory Note:

Types of Non-Event Process Effluent Streams in Column 2:

WTPE = a stream of the type described in paragraph (a) of Condition 1(1) of Schedule D

APPENDIX B

TYPES OF EVENT PROCESS EFFLUENT STREAMS, LIMITS, MONITORING FREQUENCY

TABLE:

PLANT - PICKERING NGS - A and B

Item	Analytical Test Group	Column 1 Parameter	Column 2 Types of Event Process Effluent Streams	Column 3 Monitoring Frequency	Column 4 Daily Concentration Limit mg/L	Column 5 Monthly Average Concentration Limit mg/L
1.	6	Total Phosphorus	RLWMSTE	Weekly	Not applicable	1.0
2.	8	Total Suspended Solids	ECE	Daily	25.0	Not applicable
3.	8	Total Suspended Solids	RLWMSTE	Daily	73.0	21.0
4.	9	Zinc	RLWMSTE	Weekly	1.0	0.50
5.	9a	Iron	ECE	Daily	1.0	Not applicable
6.	9a	Iron	RLWMSTE	Weekly	9.0	3.0
7.	25	Oil and grease	RLWMSTE	Weekly	36.0	13.0
8.	25	Oil and grease	OWSE	Daily	15.0	Not applicable

Explanatory Notes:

Types of Event Process Effluent Streams in Column 2:

RLWMSTE = a stream of the type described in paragraph (a) of Condition 1(2) of Schedule D

ECE = a stream of the type described in paragraph (b) of Condition 1(2) of Schedule D

OWSE = a stream of the type described in paragraph (c) of Condition 1(2) of Schedule D

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 7792-DGWK9H issued on July 18, 2025

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 27th day of March, 2026

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

MS/
c: District Manager, MECP York-Durham
Joe Lefaive, Stantec Consulting Ltd