



GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR
Department of Environment and Climate Change

CERTIFICATE OF APPROVAL

Pursuant to the Environmental Protection Act, SNL 2002 c E-14.2 Section 83

Approval No. AA22-065670

Issue Date: *June 28, 2022*

Expiration: *June 28, 2027*

File No. 732.205.2

Proponent: **Iron Ore Company of Canada**
PO Box 1000
Labrador City, Newfoundland
A2V 2L8

Attention: **Mr. Chantal Lavoie, Chef des opérations / Chief Operating Officer**

Re: **Iron Ore Company of Canada's Labrador Operation**

Approval is hereby given for the operation of the Iron Ore Company of Canada's Labrador Operation including open pit mines, concentrator, flotation plant, pellet plant, crushers, overland conveyor system, train load-out and disposal of tailings in Wabush Lake but excluding the QNSL Railway.

This Certificate of Approval does not release the proponent from the obligation to obtain appropriate approvals from other concerned provincial, federal and municipal agencies. Nothing in this Certificate of Approval negates any regulatory requirement placed on the proponent. Where there is a conflict between conditions in this Certificate of Approval and a regulation, the requirement in the regulation shall take precedence. Approval from the Department of Environment and Climate Change shall be obtained prior to any significant change in the design, construction, installation, or operation of the facility, including any future expansion of the works. This Certificate of Approval shall not be sold, assigned, transferred, leased, mortgaged, sublet or otherwise alienated by the proponent without obtaining prior approval from the Minister.

This Certificate of Approval is subject to the terms and conditions contained therein, as may be revised from time to time by the Department. Failure to comply with any of the terms and conditions may render this Certificate of Approval null and void, may require the proponent to cease all activities associated with this Certificate of Approval, may place the proponent and its agent(s) in violation of the *Environmental Protection Act*, and will make the proponent responsible for taking such remedial measures as may be prescribed by the Department. The Department reserves the right to add, delete or modify conditions, to correct errors in the Certificate of Approval or to address significant environmental or health concerns.


For **MINISTER**

TERMS AND CONDITIONS FOR APPROVAL No. AA22-065670

June 28, 2022

General

1. This approval is for the operation of the Iron Ore Company of Canada's Labrador Operation including open pit mines, concentrator, flotation plant, pellet plant, crushers, overland conveyor system, train load-out and disposal of tailings in Wabush Lake but excluding the QNSL Railway.
2. Any inquiries concerning this approval shall be directed to the St. John's office of the Pollution Prevention Division (telephone: (709) 729-2556; or facsimile: (709) 729-6969).
3. In this Certificate of Approval:
 - **accredited** means the formal recognition of the competence of a laboratory to carry out specific functions;
 - **acutely lethal**, in respect of an effluent, means that the effluent at 100% concentration kills more than 50% of the rainbow trout subjected to it for a period of 96 hours, when tested in accordance with Reference Method EPS 1/RM/13; or more than more than 50% of the Daphnia magna subjected to it for a period of 96 hours, when tested in accordance Reference Method EPS 1/RM/14;
 - **ALT (acute lethality test)** means a test conducted to determine whether an effluent is acutely lethal;
 - **associated product** means petroleum or a derivative of it, except gasoline, which is in a liquid state at ambient temperature and pressure;
 - **batch** means oil from one tank with nothing added to the tank between withdrawals;
 - **blanketed** means to cover a vessel with a lid that is specifically designed to contain vapours;
 - **Department** means the Department of Environment and Climate Change and its successors;
 - **DGSNL** means Digital Government and Service NL and its successors;
 - **DOC** means dissolved organic carbon;
 - **EDMS** means Environmental Data Management System;
 - **effluent discharge criteria (EDC)** means the maximum allowable levels for the parameters listed in Table 4;
 - **Flotation Plant Specifications** mean the current version of the *Pellet Plant*

Standard Operating Procedures – Edition 5, FP-10;

- **grab sample** means a quantity of undiluted sample collected at any given time. In this Approval it refers to used oil and effluent;
- **hazardous waste** means a product, substance or organism that is intended for disposal or recycling, including storage prior to disposal or recycling, and that:
 - (a) is listed in Schedule III of the *Export and Import of Hazardous Waste Regulations under the Canadian Environmental Protection Act, 1999*;
 - (b) is included in any of Classes 2 to 6, and 8 and 9 of the *Transportation of Dangerous Goods Regulations under the Transportation of Dangerous Goods Act, 1992*; or
 - (c) exhibits a hazard classification of a gas, a flammable liquid, an oxidizer, or a substance that is dangerously reactive, toxic, infectious, corrosive or environmentally hazardous;
- **IOCC** means the Iron Ore Company of Canada;
- **leak or leakage** means any discharge of gasoline, associated product or used glycol from a storage tank system, pipeline, tank vessel, tank car or tank vehicle, other than through the usual function for which the storage tank system, pipeline, tank vessel, tank car or tank vehicle was designed;
- **licenced** means has a Certificate of Approval issued by the Minister to conduct an activity;
- **malfunction** means any sudden, infrequent and not reasonably preventable failure of air pollution control equipment, wastewater treatment equipment, process equipment, or a process to operate in a normal or usual manner. Failures, caused in part by poor maintenance or careless operation, are not malfunctions;
- **MDMER** means the federal Metal and Diamond Mining Effluent Regulations;
- **Minister** means the Minister of the Department;
- **NO_x** means oxides of nitrogen;
- **NO₂** means nitrogen dioxide;
- **Plan** means the specific plan as identified in the section of this Approval within which it is used. For example, in the *Waste Management Plan* section it refers to the Waste Management Plan;
- **PM_{2.5}** means particulate matter with a diameter of 2.5 µm or less;
- **QA/QC** means Quality Assurance/Quality Control;
- **QNSL Railway** means Quebec North Shore and Labrador Railway primarily used for the transport of ore from Labrador City, NL to Sept-Iles, QC and is owned and operated by IOCC;

- **Reference Method EPS 1/RM/13** means Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to Rainbow Trout, Second Edition – December 2000, published by Environment Canada, as amended from time to time;
- **Reference Method EPS 1/RM/14** means Biological Test Method: Reference Method for Determining Acute Lethality of Effluents to *Daphnia magna*, Second Edition – December 2000, published by Environment Canada, as amended from time to time
- **register(ed)**, in the context of storage tanks, means that information regarding the storage tank system has been submitted to a DGSNL office and a registration number has been assigned to the storage tank system. In the context of dispersion modelling, registered means submitted to and approved by the Department in accordance with departmental policy and guidelines. In the context of environmental site assessment and impacted site management work, registered means approved by the Department in accordance with departmental policy and guidelines;
- **regulated substance** means a substance subject to discharge limit(s) under the *Environmental Control Water and Sewage Regulations, 2003*;
- **Site Professional** means an individual who is registered with the Department to oversee environmental site assessment, remediation and contaminated site management work in Newfoundland and Labrador;
- **SO₂** means sulfur dioxide;
- **SOP** means Standard Operating Procedure;
- **spill or spillage** means a loss of gasoline, associated product or used glycol in excess of 70 litres from a storage tank system, pipeline, tank vessel or vehicle, or an uncontrolled release of any volume of a regulated substance onto or into soil or a body of water;
- **storage tank system** means a tank and all vent, fill and withdrawal piping associated with it installed in a fixed location and includes a temporary arrangement;
- **TDS** means total dissolved solids;
- **TOHs (as chlorine)** means total organic halogens (as chlorine);
- **toxic pass** means a mortality rate of no more than 50% during the ALT;
- **TPH** means total petroleum hydrocarbons as measured by the Atlantic PIRI method;
- **TSP** means total suspended particulate with diameters less than 100µm;
- **TSS** means total suspended solids;
- **used glycol** means glycol that, through use, storage or handling, can no longer be used for its original purpose; and

- **used oil** means oil that, through use, storage or handling, can no longer be used for its original purpose.
4. All necessary measures shall be taken to ensure compliance with all applicable acts, regulations, policies, guidance documents and guidelines, including the following, or their successors:
- *Environmental Protection Act;*
 - *Water Resources Act;*
 - *Air Pollution Control Regulations, 2022;*
 - *Environmental Control Water and Sewage Regulations, 2003;*
 - *Halocarbon Regulations;*
 - *Storage and Handling of Gasoline and Associated Products Regulations, 2003;*
 - *Used Oil and Used Glycol Control Regulations;*
 - *Heating Oil Storage Tank System Regulations, 2003;*
 - *Storage of PCB Waste Regulations, 2003;*
 - *Ambient Air Monitoring Guidance Document;*
 - *Sampling of Water and Wastewater - Industrial Effluent Applications Guidance Document;*
 - *Accredited Laboratory Policy;*
 - *Effluent Schedule Determination Policy for Industries;*
 - *Compliance Determination Guidance Document;*
 - *Stack Emission Testing Guidance Document;*
 - *Plume Dispersion Modelling Guidance Document;*
 - *Precipitation Drainage of Dyke Areas Guidance Document;*
 - *Environmental Guidelines for Controlling Emissions of Volatile Organic Compounds from Above Ground Storage Tank; and*
 - *Guidance Document for the Management of Impacted Sites.*

This Approval provides terms and conditions to satisfy various requirements of the above listed acts, regulations, Departmental policies, guidance documents and guidelines. If it appears that any of the pertinent requirements of these acts, regulations, policies and guidelines are not being met, then a further review of the works shall be conducted, and suitable pollution control measures may be required by the Minister.

5. All reasonable efforts shall be taken to minimize the impact of the operation on the environment. Such efforts include:
- minimizing the area disturbed by the operation,
 - minimizing air, water or soil pollution,
 - finding alternative uses, acceptable to the Department, for waste or rejected materials,
 - removing equipment or structures when they no longer have further use, and
 - considering the requirement for the eventual rehabilitation of disturbed areas when planning the development of any area on the facility property.
6. IOCC shall provide to the Department, within a reasonable time, any information, records, reports or access to data requested or specified by the Department.
7. IOCC shall keep all records or other documents required by this Approval at the

Labrador Operation location for a period of not less than three (3) years, beginning the day they were made. These records shall be made available for review by officials of the Department or the DGSNL when requested.

8. Should IOCC wish to deviate in any way from the terms and conditions of this Certificate of Approval, a written request detailing the proposed deviation shall be made to the Minister. IOCC shall comply with the most current terms and conditions until the Minister has authorized otherwise. In the case of meeting a deadline requirement, the request shall be made at least 60 days ahead of the applicable date as specified in this Approval or elsewhere by the Department.

Point Source Inventory

9. IOCC shall maintain a list of stationary point source emitters (e.g. boilers, process heaters, dryers, incinerators, induration machines, kilns, process vents, flares, etc.) in operation. Information to be included in the list shall be manufacturer, manufactured date, installation date, specifications of the outlet stack, associated pollution control equipment, fuel burned, and any other information which IOCC considers appropriate.

Activities Affecting Bodies of Water

10. Any work that must be performed in a body of water below the high water mark shall be carried out during a period of low water levels.
11. All construction operations shall be carried out in a manner that minimizes damage to land, vegetation, and watercourses, and which prevents the discharge of substances, to bodies of water, in excess of applicable regulatory limits.
12. The use of heavy equipment shall be confined to dry stable areas and shall not be carried out in streams or bodies of water, unless otherwise permitted in writing by the Department.
13. All vehicles and equipment shall be clean and in good repair, free of mud and oil, or other harmful substances that could impair water quality.
14. During the construction of concrete components, formwork shall be properly constructed to prevent any fresh concrete from entering a body of water. Dumping of concrete or washing of tools and equipment in any body of water is prohibited.
15. All areas affected by this project shall be restored to a state that resembles local natural conditions. Further remedial measures to mitigate environmental impacts on water resources can and will be specified, if necessary in the opinion of this Department.
16. Prior written permission is required from the Department for all work that takes place within 15 metres of a body of water, including but not limited to bridges, culverts, fording, stream modifications, infilling and dredging.

Environmental Protection Plan

17. IOCC shall implement the most recent version of the Environmental Protection Plan. This Plan shall be reviewed annually and revised as necessary, accounting for expanding or alteration of activities. All proposed revisions shall be submitted to the Department for review. All proposed revisions shall be submitted to the Department for review.

Waste Management

18. The management of waste generated at the facility is subject to compliance with the *Environmental Protection Act*. All non-industrial waste shall be stored in a manner acceptable to the Department and, on at least a weekly basis, be disposed of:
- at an authorized waste disposal site, with the permission of the owner/operator of the site; or
 - by some other means acceptable to the Department.

If required, industrial waste shall be disposed of by a licensed operator.

19. IOCC shall ensure that all volatile chemical and solvent wastes, if they cannot be reused, are placed in suitable covered containers for disposal in a manner acceptable to the Department. Disposal of liquid wastes at waste disposal sites in the province is not permitted.
20. Disposal of hazardous waste in IOCC's mine site landfill, or a municipal or regional waste disposal site in this Province, is prohibited. Transporters of hazardous waste shall have an Approval issued by the Minister. Those generating hazardous waste shall have a waste generator's number issued by the Department and shall also complete the required information outlined in the Waste Manifest Form.

Waste Management Plan

21. IOCC shall continue to implement the *Hazardous Material and Non-Mineral Waste Management (November 2017)* and *Waste Segregation-General Requirements (December 2021)* Plans for their IOCC operation, including all revisions. Every year the Plans shall be reviewed and revised as necessary, accounting for expanding or alteration of activities. All proposed revisions shall be submitted to the Department for review.

Burning Prohibition

22. Materials listed in Table 1 shall not be burned in a fire, unless the burning of the material is recommended, in writing, by the Office of the Fire Commissioner or the burning occurs in combustion process equipment that has been approved, in writing, by the Department for that purpose.

Table 1 - Materials Prohibited from Burning in a Fire	
(a) tires	(k) manure
(b) plastics	(l) rubber
(c) treated lumber	(m) tar paper
(d) asphalt and asphalt products	(n) railway ties
(e) drywall	(o) paint and paint products
(f) demolition waste	(p) fuel and lubricant containers
(g) hazardous waste	(q) used oil
(h) biomedical waste	(r) animal cadavers
(i) domestic waste	(s) hazardous substances
(j) trash, garbage, or other waste from commercial, industrial or municipal operations	(t) materials disposed of as part of the removal or decontamination of equipment, buildings or other structures

23. The Department shall be notified prior to the burning of any materials not listed in Table 1.

Noise

24. Efforts shall be made to minimize and control noise resulting from the operations and maintenance activities. All vehicles operating within the facility shall have exhaust and muffling devices in good working order.

Dust Suppression Systems & Antifreezes

25. IOCC shall control dusting resulting from construction and operational activities at the site. Operators are encouraged to use best management practices when applying the suppressant and antifreeze additives. The approved dust suppressants and antifreezes are listed in Table 2. Additives other than these shall require approval of the Department.

Table 2: Approved Dust Suppressants, Antifreeze and Application		
Dust Suppressant	Antifreeze	Application
Water		Roads and loading pockets
Calcium chloride		Roads and loading pockets
	Glycol	De-icing of pipes and drill dust suppression systems
	Methanol	De-icing of pipes, drill dust suppression systems and crusher dust suppression systems

26. IOCC shall develop programs for dust suppression within the operation. These shall address dust from the mines, haul roads, tailings, flux blending, bulk handling yard, pellet storage areas and production drills and development drills. Each year, by

October 1, the effectiveness of the programs shall be evaluated and any changes shall be submitted to the Department for review.

27. Any incidence of dust lift off from the operational areas or tailings which results in a complaint from the public shall be recorded and reported to the Department as per the Reporting section. Details to be recorded shall include wind speed, wind direction, severity of the event, impact on the Towns of Wabush and Labrador City, and actions taken to mitigate the event.
28. Every 5 years, IOCC shall submit a long-term Plan for tailings disposal, re-vegetation of tailings areas, and the minimization of dust lift-off. The Plan shall include details on an annual basis for the first 5 years, after which the planning may be shown in 5 year increments. The next Plan shall be submitted by **April 2024** to the Department for review.
29. Each year, by **March 15**, IOCC shall submit, to the Department for review, a report of the activities of the previous year and the planned activities for the upcoming year with respect to tailings deposition, tailings re-vegetation, and the minimization of dust lift-off. The report shall include a summary of the status of the tailings including the area (hectares) that is: active, inactive, vegetated (total), vegetated during previous year, remaining to be vegetated and planned vegetation for the coming year.

Spill Prevention & Containment

30. Areas in which chemicals are used or stored shall have spill containment systems constructed with impermeable floors, walls, dykes or curbs as applicable and be configured, maintained, inspected and repaired as follows:
 - they shall not discharge to the environment;
 - they shall have an effective secondary containment capacity of at least 110% of the chemical storage tank capacity, in the case of a single storage container;
 - if there is more than one storage container, the spill containment system shall be able to retain no less than 110% of the capacity of the largest container or 100 % of the capacity of the largest container plus 10% of the aggregate capacity of all additional containers, whichever is greater;
 - they shall be kept clear of material that may compromise the containment capacity;
 - they may include a floor drain system provided that the floor drains, and the place or device to which they drain, are configured in such a manner that the required effective secondary containment capacity is maintained;
 - every year they shall be visually inspected for their liquid containing integrity, and repairs shall be made when required; and
 - once every ten years, spill containment systems shall be inspected, by a means other than visual inspection, for their liquid containing integrity, and repairs shall be made when required.
31. All on site storage of petroleum shall comply with the ***Storage and Handling of Gasoline and Associated Products Regulations, 2003***, or its successor. Storage tank systems shall be registered with the DGSNL.
32. Where applicable, all tanks and fuel delivery systems shall be inspected to appropriate American Petroleum Institute or Underwriters' Laboratories of Canada

standards, or any other standards acceptable to this Department. The required frequency of inspections may be changed at the discretion of the Department.

33. IOCC shall maintain an inventory of all petroleum and chemical storage tanks. This inventory shall include the following:
- site plan showing tank location,
 - storage tank system photos including manufacturer's labels,
 - registration number (where applicable),
 - identification number,
 - material stored,
 - capacity,
 - annual throughput,
 - tank material,
 - tank type,
 - tank diameter,
 - tank height,
 - tank colour,
 - roof type,
 - year of manufacture,
 - date of installation,
 - date of last inspection,
 - failure history,
 - maintenance history,
 - secondary capacity, and
 - date of next planned inspection.

An update of the complete storage tank inventory including any changes to it shall be submitted to the Department within three (3) months of the change having occurred.

34. Refuelling and maintenance of vehicles and equipment shall, whenever possible, be undertaken on a prepared impermeable surface with an oil containment or collection system. When this is not possible, due care shall be taken to prevent spillage on the ground and to the surrounding environment, particularly streams and other water bodies. The Contingency Plan for fuel storage shall detail the specific response actions in the event of a spill from refuelling or maintenance activities.
35. IOCC shall continue to implement the maintenance program for the prevention of leaks/spills of hydrocarbons from mobile equipment (e.g. from the hydraulic hoses and/or motors from the machine houses of the drills, excavators and trucks).

Spill Contingency Plan

36. IOCC shall continue to implement the Contingency Plan (*February 26, 2022*) for their Labrador West operation, including all revisions. This Plan describes the actions to be taken in the event of a spill of a toxic or hazardous material. Copies of the Plan shall be placed in convenient areas throughout the facility so that employees can easily refer to it when needed. IOCC shall ensure that all employees are aware of the Plan and understand the procedures and the reporting protocol to be followed in the event of an emergency. An annual response exercise is recommended for response personnel. Every year, as a minimum, the Plan shall be reviewed and revised as necessary. Any proposed significant revisions shall be submitted to the

Department for review. Changes which are not considered significant include minor variations in equipment or personnel characteristics which do not affect implementation of the plan.

37. Every time IOCC implements the Contingency Plan, information shall be recorded for future reference. This will assist in reviewing and updating the Plan. The record is to consist of all incidents with environmental implications, and include such details as:
- date;
 - time of day;
 - type of incident (i.e. liquid spill, gas leak, granular chemical spill, equipment malfunction, etc.);
 - actions taken;
 - problems encountered; and
 - other relevant information that would aid in later review of the Plan performance.

Each incident report shall be submitted to the Department as per the *Reporting* section.

Rehabilitation and Closure

38. A Rehabilitation and Closure Plan detailing the actions to be taken to restore areas disturbed by the operation has been submitted to the Department (*April 2019*). The Plan shall be implemented progressively as required and completed upon site closure.
39. As part of the site decommissioning and restoration process, IOCC shall employ a registered Site Professional to complete a site-wide environmental site assessment, as defined in the *Guidance Document for the Management of Impacted Sites*. Should impacts be identified, IOCC shall proceed through the process outlined in the Guidance Document to achieve regulatory site closure.

Fuel & Consumption

40. IOCC's boilers and induration furnace shall only combust No. 6 fuel oil (Bunker C) with a sulphur content less than or equal to 1.5% by weight.
41. IOCC is permitted to accept and combust alternative fuel only with the written approval of the Department.
42. IOCC shall obtain a certificate of analysis for a representative sample of each shipment of No. 6 fuel oil, and submit to the Department on a monthly basis as per the *Reporting* section, as follows:
- A.P.I. Gravity @ 60 °F
 - density (kg/m³ @ 15°C)
 - flash Point
 - pour point
 - sulfur % by weight

- BTU's per US Gallon
 - ash % by weight
 - sediment % by weight
 - water % by volume
 - polychlorinated biphenyls (PCBs)
 - total organic halogens (as chlorine)
 - complete metals scan
43. IOCC shall maintain, and submit to the Department on a monthly basis as per the **Reporting** section, the following:
- supplier, date and volume of each shipment of No. 6 fuel oil and distillate fuel oil received;
 - volume of on-site generated used oil determined suitable for combustion;
 - daily volume of No. 6 fuel oil, distillate fuel oil and used oil combusted;
 - certificate of analysis for each shipment of No. 6 fuel oil received, and for each batch of used oil to be combusted; and
 - name of the laboratory where the analysis was performed.

Boiler Ash

44. All boiler ash generated by IOCC shall be considered as hazardous waste. IOCC shall ensure all the boiler ash is disposed of by a licensed operator at a location acceptable to this Department. Disposal of hazardous waste in a municipal or regional waste disposal site in this Province is prohibited.

Used Oil and Used Glycol

45. Used oil and used glycol shall not be mixed and shall be stored in separate:
- closed containers;
 - registered tanks; or
 - tanks that have an active approval from DGSNL.
46. Where greater than 205 litres of used oil or used glycol is stored in one or more containers, the storage shall require approval from the Department.
47. Used oil and used glycol shall be disposed of by a company licensed for the handling and disposal of such products.
48. Information on used oil and used glycol that is generated at the facility shall be submitted to the Department for review by **January 31** of each year. This shall include a description of:
- the type(s) of oil and/or glycol used;
 - the approximate total volume of used oil and/or used glycol generated during the previous year; and
 - the method of disposal for the used oil and/or used glycol.
49. In the event that used oil and/or used glycol generated off-site is stored in the on-site storage tank(s), the information listed above shall also be required for the off-site systems.

Silica Flotation Plant

50. Unless otherwise required in these Terms and Conditions, the silica flotation plant and related works shall be operated in accordance with the Flotation Plant Specifications. In situations where the plans were revised and such changes have been documented in one of the Specifications, then the silica flotation plant and related works shall be operated to comply with the most recent of the plans.

Effluent Monitoring & Discharge

51. IOCC shall perform an Effluent Monitoring Program as per Table 3. Refer to Table 4 for the effluent discharge criteria. Analytical results shall be submitted to the Department as per the *Reporting* section.

Table 3 - Effluent Monitoring Program				
Reference	EDMS Code	Location	Parameters	Frequency
FDP-W3-02	00021	Outflow of Pumphouse Pond	EDC (except for ALT)	Weekly (at least 24 hours apart)
			ALT and TPH	Monthly (at least 15 days apart)
FDP-MP-06	00023	Discharge from waste rock pile sedimentation pond which flows into Leg Lake	EDC (except for ALT)	Weekly (at least 24 hours apart)
			ALT and TPH	Monthly (at least 15 days apart)
FDP-LLN	00637	Luce Lake North Dewatering pump discharge into White Lake Diversion Channel Extension	EDC (except for ALT)	Weekly (at least 24 hours apart)
			ALT and TPH	Monthly (at least 15 days apart)
FDP-JN	00018	Julienne Narrows	EDC (except for ALT)	Weekly (at least 24 hours apart)
			ALT and TPH	Monthly (at least 15 days apart)
FDP-HC	00019	Hakim Culvert	EDC (except for ALT)	Weekly (at least 24 hours apart)
			ALT and TPH	Monthly (at least 15 days apart)
FDP-MD30	00020	Lorraine Lake at Spooks Pit	EDC (except for ALT)	Weekly (at least 24 hours apart)
			ALT and TPH	Monthly (at least 15 days apart)
PD-11	00008	Sherwood Pit Discharge from In-Pit Shallow Well	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-14	00869	Heath Lake Pit	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-19	00010	Smallwood Pit Dewatering	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-25	00013	Sherwood Pit Sump (which discharges to Humphrey South)	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-26	00014	Magy Lake Discharge	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-32	00015	Discharge from Lorraine South	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-35	00724	Magy Pit (Discharge from in-pit well 19)	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
MD5	00017	Drainage from Mine Garage	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)

Note: ALT includes both rainbow trout and Daphnia magna testing.

Table 4 – Effluent Discharge Criteria (As of June 1, 2021)			
Parameter	Maximum Authorized Monthly Mean Concentration	Maximum Authorized Concentration in a Composite Sample	Maximum Authorized Concentration in a Grab Sample
Arsenic	0.30 mg/L	0.45 mg/L	0.60 mg/L
Copper	0.30 mg/L	0.45 mg/L	0.60 mg/L
Lead	0.10 mg/L	0.15 mg/L	0.20 mg/L
Nickel	0.50 mg/L	0.75 mg/L	1.00 mg/L
Zinc	0.50 mg/L	0.75 mg/L	1.00 mg/L
Total Suspended Solids	15.00 mg/L	22.50 mg/L	30.00 mg/L
Radium 226	0.37 Bq/L	0.74 Bq/L	1.11 Bq/L
Un-ionized ammonia	0.50 mg/L expressed as nitrogen (N)	Not applicable	1.00 mg/L expressed as nitrogen (N)
Acute Lethality	Toxic Pass		
pH	5.5 to 9 pH units		

52. IOCC may reduce the frequency of testing for a parameter that is set out in the EDC with the exception of pH, TSS, ALT and Radium 226 to not less than once in each calendar quarter, at least 30 days apart, if that parameter's monthly mean concentration in the effluent is less than 10 percent of the maximum authorized monthly mean concentration for the 12 months immediately preceding the most recent test. IOCC shall notify the Department in writing, at least 30 days in advance of a reduction in the frequency of testing.
53. IOCC may reduce the frequency of testing for Radium 226 to not less than once in each calendar quarter, at least 30 days apart, if that substance's concentration in the effluent is less than 0.037Bq/L in 10 consecutive tests. IOCC shall notify the Department in writing, at least 30 days in advance of a reduction in the frequency of testing.
54. IOCC shall increase the frequency of testing to the originally prescribed frequency for a parameter that is set out in the EDC with the exception of pH, TSS and ALT, if the parameter's monthly mean concentration is equal to or greater than 10 percent of the maximum authorized monthly mean concentration.
55. IOCC may reduce the frequency of conducting ALT's to once in each calendar quarter, at least 30 days apart, if the effluent is determined not to be acutely lethal over a period of 12 consecutive months. IOCC shall notify the Department in writing, at least 30 days in advance of a reduction in the frequency of testing.
56. If a sample is determined to be acutely lethal, an aliquot of the failing sample shall be analyzed for the parameters outlined in Table 5 without delay.

57. If a sample is determined to be acutely lethal, IOCC shall collect from the final discharge point of the failing site, a grab sample twice per month and conduct an ALT in accordance with Section 6 of the Reference Method. Samples shall be collected twice per month, not less than 7 days apart, and an ALT shall be conducted on each sample, until it is determined that the effluent is not acutely lethal for three consecutive tests. Following the third consecutive non-acutely lethal test, IOCC shall conduct ALTs as per the original prescribed frequency outlined in Table 3.
58. All oil separators shall be checked routinely and maintained in accordance with the manufacturer's instructions to ensure they are working properly. A log of these checks shall be maintained by IOCC.
59. Reports submitted under section 31 of MDMER as a result of a deposit out of the normal course of events shall be provided to the Department.

Water Chemistry Analysis

60. Four times per calendar year and not less than thirty (30) days apart, IOCC shall perform Water Quality Analysis (WCA) as per Table 5. Analytical results shall be submitted as per the *Reporting* section.

Reference	EDMS Code	Location	Parameters ¹
FDP-W3-02	00021	Outflow of Pumphouse Pond	General Parameters: temperature, dissolved oxygen (DO), nitrate + nitrite, nitrate, nitrite, pH, TSS, colour, sodium, potassium, calcium, sulphide, magnesium, ammonia, alkalinity, sulphate, chloride, turbidity, reactive silica, orthophosphate, phosphorous, DOC, conductance, TDS (calculated), phenolics, carbonate (CaCO ₃), hardness (CaCO ₃), bicarbonate (CaCO ₃) Metals Scan: aluminium, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, mercury, nickel, selenium, silver, strontium, thallium, tin, titanium, uranium, vanadium, zinc
FDP-MP-06	00023	Discharge from waste rock pile sedimentation pond which flows into Leg Lake	
FDP-LLN	00637	Luce Lake North Dewatering pump discharge into White Lake Diversion Channel Extension	
FDP-JN	00018	Julienne Narrows	
FDP-HC	00019	Hakim Culvert	
FDP-MD30	00020	Lorraine Lake at Spooks Pit	
RW-W3-02	00042	Receiving waters in Leg Lake downstream from Pumphouse Pond/Overburden Sed Pond.	
RW-MP-06	00043	Receiving waters in Leg Lake downstream from the waste rock pile sedimentation pond	
RW-LLS	00638	Luce Lake South receiving waters at the end of White Lake Channel Extension	
RW-JN	00025	Julienne Lake	
RW-MD30	00038	Lorraine Lake at Spooks Pit	
RW-BB	00028	Wabush Lake at Beaver Bay	
RW-Reference	00027	Shabogomo Lake	
MT	00034	Coarse Tailings Line sample taken after flocculent addition	
FT	00035	Fine Tailings Line sample taken after flocculent addition	

Table 5 - Water Chemistry Analysis Program

Reference	EDMS Code	Location	Parameters ¹
DB	00040	Outflow of Dumbell Lake	
BV	00039	Beverly Lake	
White Lake	00032	Outflow of White Lake	
W3-01	00044	Dumbell Lake Stream @ Real Time Station	
W3-04	00045	Steam into Leg Lake	
W3-07	00047	Un-named lake south-west of Overburden Stockpile	
W3-08	00048	Trout Lake	
W3-09	00049	Headwater lake into Beverly Lake	
LPDW	00033	Luce Pit Deep Wells	
W3DW	00683	Wabush 3 Deep Wells	
W3-MW-01a	00050	Shallow Groundwater Monitoring Well #1 – by headwater lake flowing into Beverly Lake	
W3-MW-01b	00051	Deep Groundwater Monitoring Well #1 – by headwater lake flowing into Beverly Lake	
W3-MW-02	00052	Groundwater Monitoring Well #2 by headwater lake flowing into Beverly Lake	
W3-MW-03a	00053	Shallow Groundwater Monitoring Well #3 on Smokey Mountain Road	
W3-MW-03b	00054	Deep Groundwater Monitoring Well #3 on Smokey Mountain Road	
CL	00794	Carol Lake (At MD15)	
SL	00795	Stevens Lake	

1. TSS, DO and temperature are not required for groundwater samples.

61. IOCC may discontinue testing for mercury if the mercury concentration in the effluent is less than 0.10 ug/L in 12 consecutive quarterly samples. IOCC shall notify the Department in writing, at least 30 days in advance of a reduction in the frequency of testing.

Environmental Effects Monitoring

62. MDMER requires that IOCC conduct Environmental Effects Monitoring (EEM) as part of the mine's authority to deposit effluent under the Fisheries Act. Copies of all EEM study designs and reports shall be submitted to the Department.

Ambient Air

63. IOCC shall operate an ambient air monitoring program as per the conditions in this Approval and its amendments. Approval shall be obtained from the Department prior to purchase or installation of any monitoring equipment.
64. Parameters to be monitored are outlined in Table 6.

Table 6 - Ambient Air Monitoring Program		
Location	EDMS Location Codes	Parameters
Smokey Mountain Alpine	00057	TSP, PM _{2.5} , SO ₂ , NO _x , NO ₂
Fire Hall	00055	SO ₂ , NO _x , NO ₂ , TSP, PM _{2.5} , PM ₁₀ & O ₃
Dog Park	00056	TSP, PM _{2.5} , SO ₂ , NO _x , NO ₂

65. Ambient air monitoring shall be done in accordance with the *Ambient Air Monitoring Guidance Document (GD-PPD-065)*, or its successors.

66. IOCC shall operate, calibrate and maintain a meteorological station at its operations in accordance with the guidelines specified in the United States EPA document "Quality Assurance Handbook for Air Pollution Measurement Systems - Volume IV: Meteorological Measurements Version 2.0 (Final)," EPA-454/B-08-002, or its successors. Parameters to be measured and recorded shall include as a minimum:

- wind speed,
- wind direction,
- ambient air temperature,
- relative humidity,
- barometric pressure, and
- precipitation.

All records shall be made available to the Department upon request.

67. Information regarding calibrations, site visits and maintenance for all continuous ambient air monitors shall be recorded into the DR DAS electronic logbook.

Pellet Production

68. On a monthly basis for the preceding calendar month IOCC shall submit the daily production data as per the *Reporting* section for the following:

- quantities and type of pellets produced;
- quantities of concentrate produced; and
- operational hours of the induration machines.

Annual Air Emissions Reporting

69. IOCC shall submit an annual Air Emission Report to the Department by *June 1* of the subsequent year. This report shall include:

- the estimated annual emissions of the following flue gas constituents: SO₂, NO_x, CO₂, CO, TSP, and PM_{2.5}; and
- the actual calculations including factors, formulae and/or assumptions used.

Pollution Control Equipment

70. All pollution control equipment shall be maintained and operated per the manufacturer's specifications for best performance.
71. The Department reserves the right to require the installation of additional pollution control equipment by IOCC within a reasonable time frame, as necessary to bring IOCC into compliance with the *Air Pollution Control Regulations, 2022*.

Stack Emissions Testing & Dispersion Modelling

72. Stack emissions testing shall be done in accordance with the *Stack Emission Testing Guidance Document (GD-PPD-016.1)*. Dispersion Modeling shall be done in accordance with the *Plume Dispersion Modeling Guidance Document (GD-PPD-019.2)*. Determination of frequency of stack emissions testing and dispersion modeling shall be done in accordance with the *Compliance Determination Guidance Document (GD-PPD-009.4)*.
73. IOCC shall be required to complete stack emissions testing once every four years if it has been shown, via a registered dispersion model, that the operation is in compliance with section 3(2) and Schedule A of the *Air Pollution Control Regulations, 2022*. If it has been shown, via a registered dispersion model, that the operation is not in compliance with section 3(2) and Schedule A of the *Air Pollution Control Regulations, 2022*, then the facility shall complete stack emissions testing every two years. It should be noted that these regulations may be revised in the near future under a new title.
74. Stack emissions testing results shall be submitted to the Department within *120 days* of completion of the sampling.
75. Plume dispersion modelling results shall be submitted to the Department within *120 days* of approval of the stack emissions testing results by the Department.
76. The ambient air quality standards specified in Schedule A of the *Air Pollution Control Regulations, 2022*, shall apply to all points outside of IOCC's administrative boundary. The administrative boundary is defined as the area encompassed by the coordinates contained in Appendix A, a total area of approximately 12.409 km². All coordinates are referenced to NAD83, UTM zone 19.
77. If the results from the plume dispersion modelling indicate that IOCC is not in compliance with section 3(2) and Schedule A of the *Air Pollution Control Regulations, 2022*, then IOCC shall submit to the Department, within 6 months from the date of submission of plume dispersion modelling results, an Action Plan to bring emissions of the parameters of concern into compliance. In addition to this, the Plan shall include information detailing the improvements to be implemented to the operation's equipment and instruments, and a time frame for the improvements. By December 31 of each year, a report shall be submitted to the Department outlining the progress made to date towards accomplishing the goals of the Plan.

Analysis & QA/QC

78. Unless otherwise stated herein, all solids and liquids analysis performed pursuant to this Approval shall be done by either a contracted commercial laboratory or an in-house laboratory. Contracted commercial laboratories shall have a recognized form of accreditation. In-house laboratories have the option of either obtaining accreditation or submitting to an annual inspection by a representative of the Department, for which IOCC shall be billed for each laboratory inspection in accordance with Schedule 1 of the *Accredited Laboratory Policy (PD:PP2001-01.2)*. Recommendations of the Department stemming from an annual inspections shall be addressed within 6 months; otherwise further analytical results shall not be accepted by the Department.
79. If IOCC wishes to perform in-house laboratory testing and submit to an annual inspection by the Department then a recognized form of proficiency testing recognition shall be obtained for compliance parameters for which this recognition exists. The compliance parameters are listed in the *Effluent Monitoring & Discharge* section. If using a commercial laboratory, IOCC shall contact that commercial laboratory to determine and to implement the sampling and transportation QA/QC requirements for those activities.
80. The exact location of each sampling point shall remain consistent over the life of the monitoring programs, unless otherwise approved by the Department. Using a GPS or similar device, the northing and easting of each sampling location shall be recorded and submitted by *October 31, 2022*.
81. IOCC shall bear all expenses incurred in carrying out the environmental monitoring and analysis required under conditions of this Approval.

Monitoring Alteration

82. The Department has the authority to alter monitoring programs or require additional testing at any time when:
- pollutants might be released to the surrounding environment without being detected;
 - an adverse environmental effect may occur; or
 - it is no longer necessary to maintain the current frequency of sampling and/or the monitoring of parameters.
83. IOCC may, at any time, request that monitoring program or requirements of this Approval be altered by:
- requesting the change in writing to the Department; and
 - providing sufficient justification, as determined by the Department.

The requirements of this Approval shall remain in effect until altered, in writing, by the Department.

Reporting

84. Monthly reports containing the environmental compliance monitoring and sampling information required in this Approval shall be received by the Department in digital format within 30 calendar days of the reporting month. All related laboratory reports shall be submitted with the monthly report in XML (Extensible Markup Language) format and Adobe Portable Document Format (PDF). Digital report submissions shall be uploaded through the EDMS web portal. The Pollution Prevention Division shall provide details of the portal web address and submission requirements.
85. Each monthly report shall include a summary of all environmental monitoring components and shall include an explanation for the omission of any requisite data. The monthly summary reports shall be in Microsoft Word or Adobe PDF and shall be uploaded through the EDMS web portal with the data submissions.
86. All incidents of:
- *Contingency Plan* implementation; or
 - non-conformance of any condition within this Approval; or
 - spillage or leakage of a regulated substance; or
 - effluent discharge criteria being, or suspected of being, exceeded; or
 - verbal or written complaints of an environmental nature received from the public by IOCC and related to the operations, including complaints submitted anonymously;

shall be immediately reported, within one working day, to the Department.

A written comprehensive incident report, including a detailed description of the incident, a summary of contributing factors, and an Action Plan to prevent future incidents of a similar nature, shall be prepared. The report shall include a description of actions already taken and future actions to be implemented, and shall be submitted to the Department within thirty days of the date of the initial incident.

87. Any spillage or leakage of gasoline, associated product or used glycol shall be reported immediately through the Environmental Emergencies 24-hour report line at 1-800-563-9089.

Liaison Committee

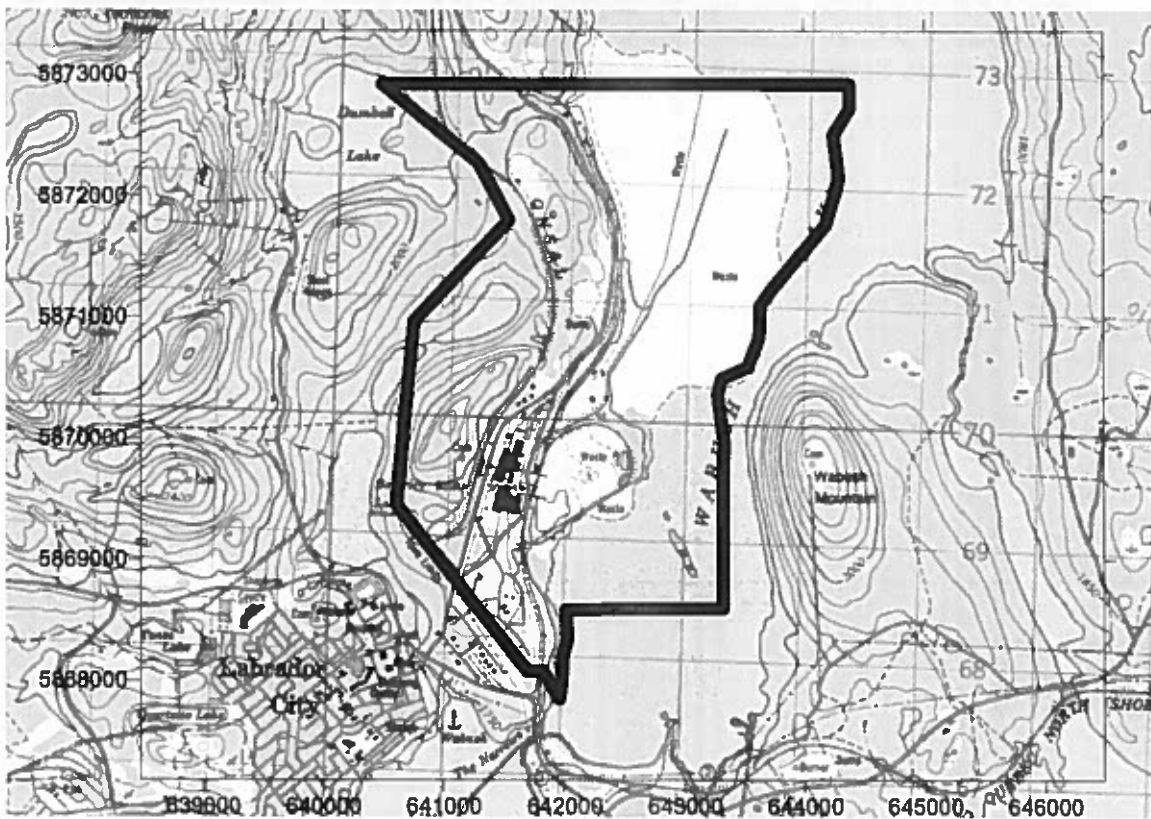
88. The Department recognizes the benefits, and at times the necessity, of accurate, unbiased communication between the public and industrial operations which have an impact on the properties and residents in the area. The Department further recognizes the conduits of communication that are in place through the Community Advisory Panel, the Joint Planning Committee and the Labrador West Regional Task Force. The Department reserves the right to require the formation of an additional Liaison Committee comprised of representatives of IOCC, the Department and independent members of the general population of Labrador City and Wabush, should it be deemed necessary.

Expiration

89. This Approval expires *June 28, 2027*.
90. Should IOCC wish to continue to operate the IOCC Labrador Operation beyond this expiry date, a written request shall be submitted to the Department for the renewal of this Approval. Such request shall be made prior to *December 28, 2026*.

APPENDIX A

Administrative Boundary Graphic and Coordinates



Note: The graphic is provided as an approximate illustration of the administrative boundary and is not intended for compliance determination.

Coordinates *			
Easting	Northing	Easting	Northing
Starting at coordinate		Continued	
640495.3	5872917.2	643319.9	5868591.0
644377.9	5872917.2	642794.2	5868591.0
644377.8	5872716.9	642010.9	5868585.8
644247.1	5872502.1	642032.2	5868351.3
644292.1	5872142.2	641985.6	5868192.6
644181.3	5871768.9	641975.8	5867984.4
643726.6	5871217.2	641965.9	5867843.3
643643.2	5871093.2	641824.6	5868086.3
643630.2	5870832.4	641690.7	5868086.3
643538.5	5870591.4	640613.4	5869458.6
643315.2	5870494.9	640762.3	5870962.7
643280.8	5870356.8	641548.5	5871804.0
643330.8	5869984.5	641304.6	5872264.2
643319.7	5869678.9	640495.3	5872917.2
Continued		End of coordinates	

* Where the coordinates are NAD 83, UTM zone 19

cc: Mr. Gary Kennell
Environment and Climate Change Canada
6 Bruce Street
Mount Pearl, NL
A1N 4T3

Mr. Jeff Pickett – Regional Director
Digital Government and Service NL
P. O. Box 2006
Corner Brook, NL
A2H 6J8

Mr. Keith Bradbury – Director
Mineral Development Division
Department of Industry, Energy and Technology
P.O. Box 8700
St. John's, NL
A1B 4J6

Mayor Belinda Adams
Town of Labrador City
P.O. Box 280
317 Hudson Drive
Labrador City NL
A2V 2K5

August 17, 2023

Ms. Sonya Flynn,
Superintendent – Environment
Iron Ore Company of Canada
2 Avalon Drive
Labrador City, NL
A2V 2V6

Dear Ms. Flynn:

RE: Amendment to Certificate of Approval AA22-065670 - PD-33 at Magy Pit

Further to IOC's August 1, 2023 notification of the reinstatement of the PD-33 discharge at Magy Pit, the operating approval AA22-065670 is hereby amended so that Table 3 includes sampling point PD-33 Magy Pit. Please refer to the attached amended Table 3.

If you have any questions or comments regarding this matter, please contact Stephen Dyke at (709) 729-2738 or myself.

Sincerely,



Dexter Pittman, P.Eng.
Manager, Environmental Compliance

Table 3 - Effluent Monitoring Program				
Reference	EDMS Code	Location	Parameters	Frequency
FDP-W3-02	00021	Outflow of Pumphouse Pond	EDC (except for ALT)	Weekly (at least 24 hours apart)
			ALT and TPH	Monthly (at least 15 days apart)
FDP-MP-06	00023	Discharge from waste rock pile sedimentation pond which flows into Leg Lake	EDC (except for ALT)	Weekly (at least 24 hours apart)
			ALT and TPH	Monthly (at least 15 days apart)
FDP-LLN	00637	Luce Lake North Dewatering pump discharge into White Lake Diversion Channel Extension	EDC (except for ALT)	Weekly (at least 24 hours apart)
			ALT and TPH	Monthly (at least 15 days apart)
FDP-JN	00018	Julienne Narrows	EDC (except for ALT)	Weekly (at least 24 hours apart)
			ALT and TPH	Monthly (at least 15 days apart)
FDP-HC	00019	Hakim Culvert	EDC (except for ALT)	Weekly (at least 24 hours apart)
			ALT and TPH	Monthly (at least 15 days apart)
FDP-MD30	00020	Lorraine Lake at Spooks Pit	EDC (except for ALT)	Weekly (at least 24 hours apart)
			ALT and TPH	Monthly (at least 15 days apart)
PD-11	00008	Sherwood Pit Discharge from In-Pit Shallow Well	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-14	00869	Heath Lake Pit	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-19	00010	Smallwood Pit Dewatering	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-25	00013	Sherwood Pit Sump (which discharges to Humphrey South)	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-26	00014	Magy Lake Discharge	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-32	00015	Discharge from Lorraine South	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-33	00016	Magy Pit (Discharging near Second Pond)	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
PD-35	00724	Magy Pit (Discharge from in-pit Well 19)	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
MD5	00017	Drainage from Mine Garage	pH, TSS and TPH	Four times per calendar year (at least 30 days apart)
Note: ALT includes both rainbow trout and Daphnia magna testing.				