

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER 0920-9XQNL5

Issue Date: June 13, 2019

ArcelorMittal Canada Inc. and ArcelorMittal Dofasco MP Inc.
operating as ArcelorMittal Dofasco G.P.
PO Box 2460 Stn LCD 1
Hamilton, ON
L8N 3J5

Site Location: ArcelorMittal Dofasco
1330 Burlington Street East
City of Hamilton, Ontario

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

the establishment of sewage works for the collection, transmission and discharge of maximum of approximately 5,810 cubic metres per day of effluent (process and cooling water) from a reverse osmosis water purification system for a high pressure steam boiler installation and a non-contact cooling water, all discharged via the MISA 400 merged effluent discharge point to the Ottawa Street slip to Hamilton Harbour as follows:

- first pass reject water and rinse water from the reverse osmosis water purification system and
- non-contact cooling water from oil system cooling and turbine generator cooling.

EXISTING WORKS

Sewage works (primary waste water treatment plant) for the collection, transmission, treatment and disposal of process wastewater generated from the iron making (blast furnaces nos. 2, 3 and 4), steel making and other auxiliary equipment serving the ArcelorMittal Dofasco Hamilton Site, located at 1330 Burlington Street East, Hamilton, Ontario:

- one (1) clarifier (No. 1), 48.77 metres in diameter and 6.1 metres in side water depth with a nominal capacity of 109,000 cubic metres per day, complete with launder, hot and cold wells etc., to receive, treat the recycle waste water from Blast Furnace operations and sandfilter backwash with the effluent discharging to the clearwell, and the waste stream from the water purification system for the high pressure boiler at #1 boilerhouse;
- one (1) clarifier (No. 2), 48.77 metres in diameter and 6.1 metres in side water depth with a nominal capacity of 109,000 cubic metres/day, complete with associated classifier, launder etc., to receive wastewater from the Hot Mill, Dekish, Desulph and Steel making operations with the effluent discharging to the clearwell;

- one (1) clarifier (No. 3), 39.62 metres in diameter and 4.27 metres in side water depth with a nominal capacity of 109,000 cubic metres/day, complete with associated classifier, launder etc., to receive wastewater from the Blast Furnace or Steel making operations or water purification system for the high pressure boiler at #1 boilerhouse, and clarifier No. 2 with the effluent discharging to clearwell or hotwell;
 - one (1) Blast Furnace Gas Washing water recirculation system for recirculation of wash water via No. 1 or No. 3 clarifiers, hotwell, cooling tower and then back to the Blast Furnace with partial blowdown of wastewater from the hotwell to No. 3 or No. 2 clarifiers via the splitter box or sand filters;
 - one (1) concrete clearwell having an approximate volumetric operating capacity of 477.0 cubic metres to receive overflow from No. 2 or No. 3 Clarifiers;
 - one (1) steel making water recirculation system consisting of seven vertical turbine pumps, feed and return pipelines and other distribution piping to serve the Steel making, Dekish and Desulph process areas;
 - four (4) continuous backwash, up-flow, deep bed granular sand filters (existing) operating in parallel, each rated at 46.7 Litres/second, for removal of suspended solids from the final effluent from the clearwell or hotwell;
 - a carbon dioxide storage and vaporization facility for addition of carbon dioxide to No. 2 clarifier centrewell or to recirculation system for pH control;
 - two (2) dispersant storage and injection system for injection of dispersant to the recirculation system (one each for the Blast Furnace and Steel making process);
 - one (1) polymer flocculent storage and injection system for addition of polymer to the filtering equipment;
 - a caustic storage and supply system for pH control;
 - a network of piping system for transfer of various liquid waste, backwash from sand filters, sludges, slurry, mud sediments and stormwater run-off from coal field to an existing waste receiver sump;
 - a building housing four (4) pieces of filtering equipment (consisting of a combination of vacuum filter drums and belt presses, operated as outlined in report noted in Condition 9(3) for sludge de-watering, pumps, piping, electrical equipment, instrumentation and other appurtenances for the handling, treatment and collection of sludges from the clarifiers,
- all other controls, electrical equipment, instrumentation, pumps, piping, valves and appurtenances essential for the proper operation of the aforementioned sewage works; all in accordance with the documents listed in Schedule 'B'.

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;

"ArcelorMittal Dofasco Hamilton site" means all Dofasco (Hamilton operations) property and includes

properties owned or leased by Dofasco where passage from one property to another involves crossing, and travelling along the following streets for the purposes of transporting Dofasco generated waste to Ministry approved Dofasco waste receiver

facilities using only Ministry approved carriers to transport waste:

- Beach Road (bounded by Kenilworth Avenue North and Gage Avenue North)
- Ottawa Street (bounded by Dofasco Gate 15 and the CN rail tracks directly south of Beach Road)
- Burlington Street East (bounded by Strathearne Avenue and Gage Avenue North)
- Industrial Drive (bounded by Burlington Street East and Gage Avenue North)
- Kenilworth Avenue (bounded by Dofasco Gate 12 and Dofasco Gate 11)
- Gage Avenue (bounded by Industrial Drive and Beach Road)
- Strathearne Avenue (bounded by Brampton Street and Dofasco Gate 14) means all Dofasco (Hamilton operations) property and includes properties owned or leased by Dofasco;

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

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

"District Manager" means the District Manager of the Hamilton District Office of the Ministry;

"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;

"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;

"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;

"Monthly Average Concentration" means the arithmetic mean of all Daily Concentrations of a contaminant in the effluent sampled or measured, or both, during a calendar month;

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

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

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

"Owner" means ArcelorMittal Dofasco Inc. and its successors and assignees;

"Previous Works" means those portions of the sewage works previously constructed and approved under an Approval;

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

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

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

TERMS AND CONDITIONS

1. GENERAL CONDITION

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

(2) Except as otherwise provided by these conditions, the Owner shall design, build, install, operate and maintain the Works in accordance with the description given in this Approval, and the application for approval of the Works.

(3) Where there is a conflict between a provision of any document in the schedule referred to in this Approval and the conditions of this Approval, the Conditions in this Approval shall take precedence, and where there is a conflict between the documents in the schedule, the document bearing the most recent date shall prevail.

(4) Where there is a conflict between the documents listed in the Schedule B, and the application, the application shall take precedence unless it is clear that the purpose of the document was to amend the application.

(5) The Conditions of this Approval are severable. If any Condition of this Approval, or the application of any requirement of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

2. CHANGE OF OWNER

(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 Owner or operating authority, or both;

(b) change of address of Owner or operating authority or address of new Owner or operating authority;

(c) change of partners where the Owner or operating authority is or at any time becomes a partnership, and a copy of the most recent declaration filed under the *Partnerships Registration Act*;

(d) change of name of the corporation where the Owner or operator is or at any time becomes a corporation, and a copy of the most current "Initial Notice or Notice of Change" (Form 1, 2 or 3 of O. Reg. 189, R.R.O. 1980, as amended from time to time), filed under the *Corporations Information Act*, shall be included in the notification to the District Manager;

(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.

(3) The Owner shall ensure that all communications made pursuant to this condition will refer to this Approval's number.

3. CHANGES IN PROCESSES OR PROCESS MATERIALS

(1) The Owner shall give written notice to the District Manager of any plans to change the processes or process materials in the Owner's enterprise serviced by the works and

(2) Where the change may alter the quantity or quality of the influent to or effluent from the works, and no such change(s) shall be made unless with the written concurrence or approval of the Director.

4. OPERATIONS MANUAL

(1) The Owner shall prepare an operations manual including 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 spills, bypasses, maintenance, and any other abnormal situations and for notifying the District Manager; and
- (e) complaint procedures for receiving and responding to public complaints.

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

5. EFFLUENT OBJECTIVES

(1) The Owner shall use best efforts to design, construct and operate the Works with the objective that the concentration and loading of the materials named as effluent parameters in the effluent objectives tables in **Schedule C** are not exceeded in the effluent from the Works.

(2) In the event of an exceedance of the objective set out in Subsection (1) above, the Owner shall:

- (a) notify the District Manager as soon as practicable during normal working hours;
- (b) take immediate action to identify the cause of the exceedance; and

(c) take immediate action to prevent further exceedances.

6. EFFLUENT LIMITS

(1) The Owner shall design, construct and operate the Works such that the concentrations of the materials listed as effluent parameters in the effluent limits table in **Schedule D** are not exceeded in the effluent from the Works.

(a) The effluent criteria listed in Schedule D become effective three (3) years following the issuance of this approval.

(2) For the purposes of determining compliance with and enforcing subsection (1):

(a) non-compliance with respect to a Monthly Average Concentration Limit is deemed to have occurred when the arithmetic mean concentration of all samples taken in a month analyzed for a parameter named in Column 1 of the Effluent Concentration Limits Table listed in **Schedule D** is greater than the corresponding average concentration set out in Column 2 of the Effluent Concentration Limits Table listed in **Schedule D** ;

(b) non-compliance with respect to a Monthly Average Waste Loading Limit is deemed to have occurred when the arithmetic mean of all individual waste loadings taken in a month for a parameter named in Column 1 of the Effluent Loading Limits Table listed in **Schedule D** is greater than the corresponding average waste loading set out in Column 2 of the Effluent Loading Limits Table listed in **Schedule D**;

(c) non-compliance with respect to pH is deemed to have occurred when any single measurement is outside of the indicated range.

(3) In the event of an exceedance of the Effluent Limits set out in Subsection (1), the Owner shall:

(a) notify the District Manager as soon as practicable during normal working hours;

(b) take immediate action to identify the cause of the exceedance; and

(c) take immediate action to prevent further exceedances.

(4) The Average Daily Blowdown Flow shall not exceed 10,600 cubic metres per day and the maximum daily blowdown flow shall not exceed 16,128 cubic metres per day when all the four filters are in operation. If one of the filters is out of operation, the

Average Daily Blowdown Flow shall not exceed 10,600 cubic metres per day and the maximum daily blowdown flow shall not exceed 12,096 cubic metres per day.

7. EFFLUENT - VISUAL OBSERVATIONS

Notwithstanding any other condition in this Approval, the Owner shall 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, sheen or foam on the receiving waters.

8. EFFLUENT MONITORING AND RECORDING

(1) The Owner shall, upon commencement of operation of the sewage works, carry out the effluent monitoring program outlines in Schedule E. All samples and measurements taken for the purposes of this Approval are to be taken at a time and in a location characteristic of the quality and quantity of the effluent stream over the time period being monitored.

(2) 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 2016), 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; and,

(c) in respect of any parameters not mentioned in (a) and (b), the written approval of the District Manager, which approval shall be obtained prior to sampling.

(3) A continuous flow measuring device(s) shall be installed and maintained to measure the flow rate of the effluent from the sewage works, in accordance with reporting requirements as defined by MISA Regulation 214/05.

(4) The Owner shall retain for a minimum of six (6) years from the date of their creation, all records and information related to and resulting from the monitoring activities required by this Approval.

9. REPORTING

(1) In addition to the obligations under Part X of the *Environmental Protection Act*, the Owner shall, within 10 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.

(2) The Owner shall prepare and submit a performance report to the District Manager on an annual basis within ninety (90) days following the end of the period being reported upon. The first such report shall cover the first annual period following the

commencement of operation of the Works and subsequent reports shall be submitted to cover successive annual periods following thereafter. The reports shall contain, but shall not be limited to, the following information:

- (a) a summary and interpretation of all monitoring data, including an overview of the success and adequacy of the sewage Works;
- (b) a description of any operating problems encountered and corrective actions taken;

- (c) a summary of all maintenance carried out on any major structure, equipment, apparatus, mechanism or thing forming part of the sewage works;
- (d) a summary of any effluent quality assurance or control measures undertaken in the reporting period;
- (e) a summary of the calibration and maintenance carried out on all effluent monitoring equipment;
- (f) a copy of all Notice of Modifications submitted to the District Manager as a result of Schedule A, Section 1, with a status report on the implementation of each modification;
- (g) a report summarizing all modifications completed as a result of Schedule A, Section 3; and
- (h) any other information the District Manager requires from time to time.

(3) Vacuum drum filters, belt presses, clarifiers and sand filters

The Owner shall prepare and submit a report to the District Manager for his/her evaluation, within two (2) years of issuance of this Approval outlining an operational and maintenance plan and assessing the overall performance of the sewage Works (including vacuum drum filters, belt presses, clarifiers and sand filters) to provide specific operating goals and operational guidance with technical design based effluent objectives for total suspended solids at the MISA600 discharge point. The report shall include but not limited to:

- (a) developed standard operating procedures and goals for each treatment component including items like such as: polymer addition rate, belt speed, etc. adjusted for operating conditions; and operating goals for removal efficiencies for Total Suspended Solids;

- (b) propose effluent objectives for loadings and concentrations of total suspended solids at MISA 600.

(4) The Owner shall retain services of a qualified professional to prepare and submit a report to the District Manager for his/her evaluation, within six (6) months of the issuance of this Approval, to assess the overall performance of the sewage works and

to evaluate the operation of three blast furnaces at the site vs the two blast furnace operation based on the pre-2008 changes to wastewater quality and including the Assimilative Capacity sampling that was completed and supported the development of the effluent criteria in Schedules C and D. The report shall include but limited to the following items:

- (a) provide a terms of reference within two (2) months of the issuance of the approval to the District Manager, for approval, for the two versus three blast furnace evaluation; and
- (b) prepare and submit a report within four (4) months of the acceptance of the terms of reference to make recommendations for revised effluent criteria (specifically at MISA 600) for Schedules C and D, if it can be concluded that the three blast furnaces in operation at the plant has increased the contaminant loadings at MISA 600 sampling point; and/or
- (c) a proposed treatment and implementation plan, where required, to meet the effluent criteria listed for MISA 600 in Schedules C and D, or as approved changes by the Ministry to effluent criteria at MISA 600; and prepare and submit a report within two (2) years of the issuance of this approval detailing an assessment of treatment alternatives and implantation plan(s) where required to meet the proposed effluent criteria listed for MISA 600 in Schedules C and D, or as approved changes by the Ministry to proposed effluent criteria including an assessment of new environmental risks associated with candidate treatment alternatives.

(5) Total Phosphorus - High Pressure Turbine

The Owner shall prepare and submit a report to the District Manager for his/her evaluation, within three (3) years of issuance of this Approval (unless so agreed to in writing by the District Manager), for the evaluation of treatment options and proposal of the treatment system to address the Total Phosphorus concentrations and loadings from the Reverse Osmosis system wastewater. The report shall include but is not limited to:

- (a) a study evaluating the commercially available treatment methods to address this type of phosphorus, the proposed treatment option, proposed effluent limits expressed as loading at MISA 600.

(6) If deemed appropriate, the Owner shall submit an ECA application for any amendments that may be necessary to meet the intended effluent goals submitted to the Ministry.

10. 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 A 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 approved existing operating capacity of the Works and/or new or modified influent streams before a MISA monitoring or discharge location;

(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 to the local fire services authority prior to implementing Limited Operational Flexibility.

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

(8) 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.

SCHEDULE 'A'

Limited Operational Flexibility Criteria for Modifications to Industrial Sewage Works

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

1.1 Sewage Pumping Stations

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

1.2 Sewage Treatment Process

- a. Replacing chemical dosage equipment including replacing with alternative chemicals for coagulants (non-toxic polymers) provided that there are no modifications of treatment processes or other modifications that may alter the intent of operations and may have negative impacts on the effluent quantity and quality.
- b. Expanding the buffer zone between a sanitary sewage lagoon facility or land treatment area and adjacent uses provided that the buffer zone is entirely on the proponent's land.
- c. Optimizing existing sanitary sewage lagoons with the purpose to increase efficiency of treatment operations.
- d. Optimizing existing sewage treatment plant equipment with the purpose to increase the efficiency of the existing treatment operations, provided that there are no modifications to the works that result in an increase of the existing operating capacity, and may have adverse effects to the effluent quality or location of the discharge.
- e. Replacement, refurbishment of previously approved equipment in whole or in part with Equivalent Equipment, like-for-like of different make and model, provided that the firm capacity, reliability, performance standard, level of quality and redundancy of the group of equipment is kept the same and provided where effluent quality need not and/or cannot be improved based upon current technology. For clarity purposes, the following equipment can be considered under this provision: pumps, screens, grit separators, blowers, aeration equipment, sludge thickeners, dewatering equipment, UV systems, chlorine contact equipment, bio-disks, and sludge digester systems.

1.3 Sewage Treatment Plant Outfall

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

1.4 Stormwater Management System

- a. Modifications of stormwater management works to service the existing approved drainage area located within the site, provided that there is no increase in the average impervious area established in the original design and the discharges from the site will not exceed the attenuated flows established in the original design.
- b. Installation of new oil grit separators.

1.5 Sanitary Sewers

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

1.6 Pilot Systems

- a. Installation of pilot systems for new or existing technologies provided that:
 - i. any effluent from the pilot system is discharged to the inlet of the sewage treatment plant or hauled off-site for proper disposal,
 - ii. any effluent from the pilot system discharged to the inlet of the sewage treatment plant or sewage conveyance system does not significantly alter the composition/concentration of the influent sewage to be treated in the downstream process; and that it does not add any inhibiting substances to the downstream process, and
 - iii. the pilot system's duration does not exceed a maximum of two years; and a report with results is submitted to the Director and District Manager three months after completion of the pilot project.

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

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

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

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

Part 1 – Environmental Compliance Approval (ECA) with Limited Operational Flexibility <i>(Insert the ECA's owner, number and issuance date and notice number, which should start with "01" and consecutive numbers thereafter)</i>		
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 <i>(Attach a detailed description of the sewage works)</i>
<p>Description shall include:</p> <ol style="list-style-type: none"> 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	
<p>I hereby declare that I have verified the scope and technical aspects of this modification and confirm that the design:</p> <ol style="list-style-type: none"> 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. <p>I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate</p>	
Name (Print)	PEO License Number
Signature	Date (mm/dd/yy)
Name of Employer	

Part 4 – Declaration by Owner	
<p>I hereby declare that:</p> <ol style="list-style-type: none"> 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 <i>Environmental Assessment Act</i>. <p>I hereby declare that to the best of my knowledge, information and belief the information contained in this form is complete and accurate</p>	
Name of Owner Representative (Print)	Owner representative's title (Print)
Owner Representative's Signature	Date (mm/dd/yy)

SCHEDULE 'B'

Environmental Compliance Approval (ECA) supporting documents:

1. Application for Environmental Compliance Approval (ECA) dated June 7, 2012 signed by Sean Donnelly, President and Chief Executive Officer, ArcelorMittal Dofasco MP Inc. and ArcelorMittal Canada Inc. supporting documents.
2. Application for Environmental Compliance Approval (ECA) dated June 28, 2017 signed by Ms. Angela Pappin, VPTechnology, ArcelorMittal Dofasco MP Inc. and ArcelorMittal Canada Inc. supporting documents.
3. Application for Environmental Compliance Approval (ECA) received February 6, 2009 signed by Mr. Kyle Edwards, Chemical and Environmental Engineering of

ArcelorMittal Dofasco MP Inc. and ArcelorMittal Canada Inc. and supporting documents.

4. Environmental Compliance Approval (ECA) 4-0088-97-006 and application for Approval dated July 30, 1997 from Mr. Ed Morganti, Chemical and Environmental Engineering of Dofasco Inc., Hamilton, Ontario and the supporting documents.

5. Environmental Compliance Approval (ECA) 4-0088-97-006 Notice No. 1.

SCHEDULE 'C'

Final Effluent Design Objectives

Effluent Concentration Objectives Table

Effluent Parameter	Monthly Average Concentration Objective at MISA 400 (mg/L)
column 1	column 2
Nitrate + Nitrite as Nitrogen	10
Fluoride	1.5
Total Antimony	0.02
Total Barium	0.779
Total Boron	0.2
Total Manganese	3.107
Total Molybdenum	0.04
Total Suspended Solids	to be determined

Effluent Loading Objectives Table

Effluent Parameter	Loading Objective at MISA 600 (kg/day)
column 1	column 2
Nitrate + Nitrite as Nitrogen	to be determined per Condition 9(4)
Fluoride	to be determined per Condition 9(4)
Total Antimony	to be determined per Condition 9(4)
Total Barium	to be determined per Condition 9(4)
Total Boron	to be determined per Condition 9(4)
Total Manganese	to be determined per Condition 9(4)
Total Molybdenum	to be determined per Condition 9(4)
Total Suspended Solids	to be determined per Condition 9(4)

SCHEDULE 'D'

**Final Effluent Compliance Limits
Effluent Concentration Limits Table**

Effluent Parameter	Monthly Average Concentration Limit at MISA 400 (mg/L)
column 1	column 2
BOD5	10

Free Cyanide	0.016
Total Ammonia Nitrogen	winter (Nov to Apr) 4 summer (May to Oct) 1.5
Total Arsenic	0.005
Total Copper	0.0137
Total Iron	1.047
Total Lead	0.0188
Total Thallium	0.0003
Total Zinc	0.0587
pH	6.0 - 9.5
Total Phosphorous	to be determined
Oil and Grease	15
Total Suspended Solids	Existing Limit in MISA
Temperature, °C	max 30 deg. C, delta T of 10 deg. C

Effluent Loading Limits Table

Effluent Parameter	Loading Limit at MISA 600 (kg/day)
column 1	column 2
BOD5	to be determined per Condition 9(4)
Free Cyanide	to be determined per Condition 9(4)
Total Ammonia Nitrogen	to be determined per Condition 9(4)
Total Arsenic	to be determined per Condition 9(4)
Total Copper	to be determined per Condition 9(4)
Total Iron	to be determined per Condition 9(4)
Total Lead	to be determined per Condition 9(4)
Total Thallium	to be determined per Condition 9(4)
Total Zinc	to be determined per Condition 9(4)
Phenolics	to be determined per Condition 9(4)
Total Phosphorous	to be determined per Condition 9(4)
Oil and Grease	to be determined per Condition 9(4)

SCHEDULE 'E'

Monitoring Program

Effluent Monitoring Table

Effluent Monitoring at MISA 400 and MISA 600		
Effluent Parameter	Frequency	Sample Type
Column 1	Column 2	Column 3
BOD5	weekly	composite
Cyanide, free	weekly	composite

Nitrate + Nitrite	weekly	composite
Total Ammonia Nitrogen	weekly	composite
Fluoride	weekly	composite
Chloride, dissolved	weekly	composite
Sulphate, dissolved	weekly	composite
Antimony, total	weekly	composite
Arsenic, total	weekly	composite
Barium, total	weekly	composite
Boron, total	weekly	composite
Copper, total	weekly	composite
Iron, total	weekly	composite
Lead, total	weekly	composite
Manganese, total	weekly	composite
Molybdenum, total	weekly	composite
Thallium, total	weekly	composite
Zinc, total	weekly	composite
pH (at MISA 400 only)	weekly	composite
Phenolics (4AAA)	weekly	composite
Total Phosphorus	weekly	composite
Oil & Grease	weekly	composite
Total Suspended Solids	weekly	composite
Temperature (MISA 400 only)	continuous	continuous
Total Ammonia Nitrogen (MISA 800 only)	weekly	composite
Semi-volatiles (MISA 600)	quarterly	grab

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 is operated in accordance with the information submitted by the owner relating to the process and materials which are served by the works, and to ensure that any contemplated changes in them which could potentially affect the characteristics of effluent from the works will be properly

reviewed and approved.

4. Condition 4 is included to ensure that a comprehensive operations manual governing all significant areas of operation, maintenance and repair is prepared, implemented and kept up-to-date by the owner and made available to the Ministry. Such a manual is an integral part of the operation of the works. Its compilation and use should assist the owner in staff training, in proper plant operation and in identifying and planning for contingencies during possible abnormal conditions. The manual will also act as a benchmark for Ministry staff when reviewing the owner's operation of the work.

5. Condition 5 is imposed to establish non-enforceable effluent quality objectives which the Owner is obligated to use best efforts to strive towards on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively and voluntarily before environmental impairment occurs and before the compliance limits of Condition 6 are exceeded.

6. Condition 6 and 7 are imposed to ensure that the effluent discharged from the Works to the Hamilton Harbour meets the Ministry's effluent quality requirements thus minimizing environmental impact on the receiver.

7. Condition 8 is included to provide a performance record for future references and to ensure that the Ministry is made aware of problems as they arise, so that the Ministry can work with the Owner in resolving the problems in a timely manner. It is also imposed to ensure that the works do not further deteriorate the water quality of the receiving water body.

8. Condition 9 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, Ministry policies, guidelines, and industry engineering standards and best management practices.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 6554-7XES8N issued on December 22, 2009.

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. 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;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

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

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Director appointed for the purposes of
Part II.1 of the Environmental Protection Act
Ministry of the Environment and Climate
Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal 's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 314-4506 or www.ert.gov.on.ca**

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

DATED AT TORONTO this 13th day of June, 2019

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

HV/
c: District Manager, MOECC Hamilton District Office
Conrad D'Costa, ArcelorMittal Dofasco
Julie Wedzinga, ArcelorMittal Dofasco