

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

ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER A-500-9129100303

Version: 1.0

Issue Date: September 17, 2021

Pursuant to section 20.3 of the Environmental Protection Act, R.S.O. 1990, c. E. 19 and subject to all other applicable Acts or regulations this Environmental Compliance Approval is issued to:

ARCELORMITTAL DOFASCO G.P.

1330 BURLINGTON ST E HAMILTON ONTARIO L8N3J5

For the following site:

1330 Burlington Street East, Hamilton, HAMILTON CITY, ONTARIO, CANADA, L8N 3J5

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s) 5350-BW7LUX, issued on January 21, 2021.

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:

An integrated iron and steel manufacturing facility, consisting of the following processes and support units:

- material handling and processing;
- coke making;
- iron making;
- steel making;
- cold rolling;
- hot rolling; and
- finishing and coating

including the Equipment and any other ancillary and support processes and activities, operating at a Facility Production Limit of up to 1,300,000 tonnes per year of coke production; 3,300,000 tonnes per year of molten iron production; and 4,700,000 tonnes per year of steel production (3,100,000 tonnes in the KOBM and 1,600,000 tonnes in the EAF) discharging to the air as described in the Original ESDM Report.

DEFINITIONS

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

- "ACB list" means the document entitled "Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants", as amended from time to time and published by the Ministry and available on a Government website;
- 2. "Acceptable Point of Impingement Concentration" means a concentration accepted by the Ministry as not likely to cause an adverse effect for a Compound of Concern that,
 - a. is not identified in the ACB list, or
 - b. is identified in the ACB list as belonging to the category "Benchmark 2" and has a concentration at a Point of Impingement that exceeds the concentration set out for the contaminant in that document.

With respect to the Original ESDM Report, the Acceptable Point of Impingement Concentration for a Compound of Concern mentioned above is the concentration set out in the Original ESDM Report;

- 3. "Acoustic Assessment Report" means the report, prepared in accordance with Publication NPC-233 and Appendix A of the Basic Comprehensive User Guide, by Hatch Associates Limited, dated July 10, 2017 and signed by Mervin Choy, P.Eng., and supplemented by the letter entitled "Steel Making ThermOx Environmental Compliance Approval Noise Amendment" prepared by Hatch Associates Limited, dated April 30, 2021 and signed by Felipe Vernaza, P.Eng., submitted in support of the application, that documents all sources of noise emissions and Noise Control Measures present at the Facility, as updated in accordance with Condition 5 of this Approval;
- 4. "Acoustic Assessment Summary Table" means a table prepared in accordance with the Basic Comprehensive User Guide summarising the results of the Acoustic Assessment Report, as updated in accordance with Condition 5 of this Approval;
- 5. "Acoustic Audit" means an investigative procedure consisting of measurements and/or acoustic modelling of all sources of noise emissions due to the operation of the Facility, assessed to determine compliance with the performance limits for the Facility regarding noise emissions, completed in accordance with the procedures set in Publication NPC-103 and reported in accordance with Publication NPC-233;
- 6. "Acoustic Audit Report" means a report presenting the results of an Acoustic Audit, prepared in accordance with Publication NPC-233;
- 7. "Acoustical Consultant" means a person currently active in the field of environmental acoustics and noise/vibration control, who is familiar with Ministry noise guidelines and procedures and has a combination of formal university education, training and experience necessary to assess noise emissions from a Facility;
- 8. "Approval" means this Environmental Compliance Approval including any Schedules to it;
- 9. "Basic Comprehensive User Guide" means the Ministry document titled "Basic Comprehensive Approvals of Approval (Air) User Guide" dated March 2011, as amended;
- 10. "Battery Repair" means a repair to a By-product coke oven battery that affects the entire battery, such as a repair to an end flue or a burner. For clarity, the repair of one or more Coke Ovens does not constitute a battery repair;
- 11. "Best Management Practices Plan for Fugitive Dust" means the measures to minimize dust emissions from the Facility roads, storage piles and material handling sources and includes the document titled "ArcelorMittal Dofasco G.P. Best Management Practices Plan (BMP) Program Report (for the Control of Fugitive Dust Emission) for the 2016 Operating Year", September 2017, Revision: 0, as amended;
- 12. "Best Management Practices Plan for Odour" means the measures to minimize odorous emissions from the Facility and/or Equipment and includes the document titled "Final Report Best

Management Practices Plan (BMP) - Odour, ArcelorMittal Dofasco Inc., Hamilton, Ontario", Zorix Report No. 11-204R, June 14, 2011, as amended;

- 13. "By-product coke oven battery" means a structure that,
 - a. comprises Coke Ovens that operate under positive pressure and are connected by common walls, and
 - b. is constructed in a manner that allows by-products to be recovered from Coke Oven gas;
- 14. "Business Day" means a day that is not a Saturday or a holiday within the meaning of section 87 of the Legislation Act, 2006;
- 15. "CEM System" means the continuous emissions monitoring and recording systems and associated control systems used to optimize the operation of the Equipment, as described in the Company's application, this Approval and in the supporting documentation referred to herein, to the extent approved by this Approval;
- 16. "Charging" means the Coke Oven operation in which coal is loaded into a Coke Oven; and "charge" has a corresponding meaning;
- 17. "Coke Oven" means an oven in which the Coking Process occurs;
- 18. "Coke Oven Door" means the entire area on the vertical face of a Coke Oven between the bench and the top of the battery between two adjacent buckstays and includes the Coke Oven Door, chuck door, and buck stay or jamb;
- 19. "Coke Side" means the side of a By-product coke oven battery from which the coke is discharged from Coke Ovens at the end of the Coking Process.
- 20. "Coking Process" means a process in which coal undergoes destructive distillation to produce coke and Coke Oven gas;
- 21. "Collecting Main" means any apparatus that is connected to one or more Offtake Systems and that provides a passage for conveying gases under positive pressure from the By-product coke oven battery to the by-product recovery system;
- 22. "Company" means ArcelorMittal Dofasco MP Inc. and ArcelorMittal Canada Inc. that is responsible for the construction or operation of the Facility and includes any successors and assigns in accordance with section 19 of the EPA;
- 23. "Compound of Concern" means a contaminant described in paragraph 4 subsection 26 (1) of O. Reg. 419/05, namely, a contaminant that is discharged from the Facility in an amount that is not negligible;
- 24. "Description Section" means the section on page one of this Approval describing the Company's operations and the Equipment located at the Facility and specifying the Facility Production Limit for the Facility;
- 25. "Director" means a person appointed for the purpose of section 20.3 of the EPA by the Minister pursuant to section 5 of the EPA;
- 26. "District Manager" means the District Manager of the appropriate local district office of the Ministry, where the Facility is geographically located;
- 27. "Emission Summary Table" means a table described in paragraph 14 of subsection 26 (1) of O. Reg. 419/05;
- 28. "Environmental Assessment Act" means the Environmental Assessment Act, R.S.O. 1990, c.E.18, as amended;
- 29. "EPA" means the Environmental Protection Act, R.S.O. 1990, c.E.19, as amended;

- 30. "Equipment" means equipment or processes described in the ESDM Report, this Approval and in the Schedules referred to herein and any other equipment or processes;
- 31. "Equipment with Specific Operational Limits" means the #1 Melt Shop EAF Ladle Heater and Post Combustion incinerator, KOBM Ladle Heater and Post Combustion incinerator, Electric Arc Furnace, any Equipment related to the thermal oxidation of waste or waste derived fuels, fume incinerators, thermal oxidizers or any other Equipment that is specifically referenced in any published Ministry document, except Guideline A-9, that outlines specific operational guidance that must be considered by the Director in issuing an Approval;
- 32. "ESDM Report" means the most current Emission Summary and Dispersion Modelling Report that describes the Facility. The ESDM Report is based on the Original ESDM Report and is updated after the issuance of this Approval in accordance with section 26 of O. Reg. 419/05 and the Procedure Document:
- 33. "Facility" means the entire operation located on the property where the Equipment is located;
- 34. "Facility Production Limit" means the production limit placed by the Director on the main product(s) or raw materials used by the Facility;
- 35. "Fugitive Emission" means an emission from a By-product coke oven battery that is not collected by a capture system and that is discharged to the air. A fugitive emission includes,
 - a. an emission that escapes capture by process equipment exhaust hoods,
 - b. an emission that is emitted during material transfer,
 - c. an emission that is emitted from buildings housing material processing equipment or handling equipment, and
 - d. an emission that is emitted directly from process equipment;
- 36. "Guideline A-8" means the Ministry document titled "Guideline A-8: Guideline for the Implementation of Canada-wide Standards for Emissions of Mercury and of Dioxins and Furans and Monitoring and Reporting Requirements for Municipal Waste Incinerators Biomedical Waste Incinerators Sewage Sludge Incinerators Hazardous Waste Incinerators Steel Manufacturing Electric Arc Furnaces Iron Sintering Plants", dated August 19, 2004, as amended;
- 37. "Guideline A-9" means the Ministry document titled "Guideline A-9: NOx Emissions from Boilers and Heaters", dated March 2001, as amended;
- 38. "Independent Acoustical Consultant" means an Acoustical Consultant who is not representing the Company and was not involved in preparing the Acoustic Assessment Report or the design /implementation of Noise Control Measures for the Facility and/or Equipment. The Independent Acoustical Consultant shall not be retained by the Acoustical Consultant involved in the noise impact assessment or the design/implementation of Noise Control Measures for the Facility and/or Equipment;
- 39. "LDAR Program" means a Leak Detection and Repair Program described in the document "Arcelor Mittal Dofasco G.P Leak Detection and Repair (LDAR) Program Report for 2017 Operating Year", as amended:
- 40. "LDAR Program Report" means a report submitted annually documenting the LDAR Program and its implementation and management;
- 41. "Log" means a document that contains a record of each change that is required to be made to the ESDM Report and Acoustic Assessment Report, including the date on which the change occurred. For example, a record would have to be made of a more accurate emission rate for a source of contaminant, more accurate meteorological data, a more accurate value of a parameter that is related to a source of contaminant, a change to a Point of Impingement and all changes to information associated with a Modification to the Facility that satisfies Condition 2;

- 42. "Manager" means the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, or any other person who represents and carries out the duties of the Manager, Technology Standards Section, Technical Assessment and Standards Development Branch, as those duties relate to the conditions of this Approval;
- 43. "Manual" means a document or a set of documents that provide written instructions to staff of the Company;
- 44. "Method 9" means the document entitled "Method 9 Visual Determination of the Opacity of Emissions from Stationary Sources" made available on the Internet by the USEPA, as amended from time to time, or a copy of that document that is available from the Ministry;
- 45. "Method 303" means the document entitled "Method 303-Determination of Visible Emissions From By-Product Coke Oven Batteries" made available on the Internet by the USEPA, as amended from time to time, or a copy of that document that is available from the Ministry;
- 46. "Minister" means the Minister of the Environment, Conservation and Parks or such other member of the Executive Council as may be assigned the administration of the EPA under the Executive Council Act:
- 47. "Ministry" means the ministry of the Minister;
- 48. "Modification" means any construction, alteration, extension or replacement of any plant, structure, equipment, apparatus, mechanism or thing, or alteration of a process or rate of production at the Facility that may discharge or alter the rate or manner of discharge of a Compound of Concern to the air or discharge or alter noise or vibration emissions from the Facility;
- 49. "Noise Control Measures" means measures to reduce the noise emissions from the Facility and/or Equipment including, but not limited to, silencers, acoustic louvres, enclosures, absorptive treatment, plenums and barriers. It also means the noise control measures detailed in the Acoustic Assessment Report;
- 50. "O. Reg. 419/05" means Ontario Regulation 419/05, Air Pollution Local Air Quality, as amended;
- 51. "O. Reg. 194/05" means Ontario Regulation 194/05, Industry Emissions Nitrogen Oxides and Sulphur Dioxide, as amended;
- 52. "Offtake System" means any individual Coke Oven apparatus that is stationary and provides a passage for gases from a Coke Oven to a By-product coke oven battery Collecting Main or to another Coke Oven. Offtake system components include the standpipe and standpipe caps, goosenecks, flange between the gooseneck and collection main, stationary jumper pipes, mini-standpipes, and standpipe and gooseneck connections;
- 53. "Opacity Technical Bulletin" means the Ministry document titled "Technical Methods for Opacity under O. Reg. 419" dated September 2016, as amended;
- 54. "Organic Matter" means organic matter having a carbon content expressed as equivalent methane;
- 55. "Original ESDM Report" means the Emission Summary and Dispersion Modelling Report which was prepared in accordance with section 26 of O. Reg. 419/05 and the Procedure Document by ArcelorMittal Dofasco MP Inc. and ArcelorMittal Canada Inc. and signed by Julie Wedzinga dated October 27, 2017 submitted in support of the application, and includes any changes to the report made up to the date of issuance of this Approval;
- 56. "Point of Impingement" has the same meaning as in section 2 of O. Reg. 419/05;
- 57. "Point of Reception" means Point of Reception as defined by Publication NPC-300;
- 58. "Pre-Test Plan" means a plan for the Source Testing including the information required in Section 5 of the Source Testing Code;

- 59. "Procedure Document" means Ministry guidance document titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated February 2017, as amended;
- 60. "Processes with Significant Environmental Aspects" means the Equipment which, during regular operation, would discharge one or more contaminants into the air in an amount which is not considered as negligible in accordance with section 26 (1) 4 of O. Reg. 419/05 and the Procedure Document;
- 61. "Professional Engineer" means a Professional Engineer as defined under the Professional Engineers Act, R.S.O. 1990, as amended;
- 62. "Publication NPC-103" means the Ministry Publication NPC-103 of the Model Municipal Noise Control By-Law, Final Report, August 1978, published by the Ministry as amended;
- 63. "Publication NPC-207" means the Ministry draft technical publication "Impulse Vibration in Residential Buildings", November 1983, supplementing the Model Municipal Noise Control By-Law, Final Report, published by the Ministry, August 1978, as amended;
- 64. "Publication NPC-233" means the Ministry Publication NPC-233, "Information to be Submitted for Approval of Stationary Sources of Sound", October, 1995, as amended;
- 65. "Publication NPC-300" means the Ministry Publication NPC-300, "Environmental Noise Guideline, Stationary and Transportation Sources Approval and Planning, Publication NPC-300", August 2013, as amended;
- 66. "Pushing" means the coke oven operation in which coke is removed from a Coke Oven and "push" has a corresponding meaning;
- 67. "Quenching" means the process of cooling hot coke by direct contact with water; and "quench" has a corresponding meaning;
- 68. "Sensitive Receptor" means any location where routine or normal activities occurring at reasonably expected times would experience adverse effect(s) from odour discharges from the Facility, including one or a combination of: residences or facilities where people sleep (e.g., single and multi-unit dwellings, nursing homes, hospitals, trailer parks, camping grounds, etc.), institutional facilities (e.g., schools, churches, community centres, day care centres, recreational centres, etc.), outdoor recreational areas (e.g., trailer parks, play grounds, picnic areas, etc.), and other public areas where there are continuous human activities (e.g., commercial plazas and office buildings);
- 69. "Schedules" means the following schedules attached to this Approval and forming part of this Approval namely:
 - Schedule 1 Supporting Documentation
 - Schedule 2 Source Testing Procedure
 - Schedule 3 Source Testing (Sources and Contaminants)
 - Schedule 4 Continuous Emissions Monitoring and Recording System Opacity
 - Schedule 5 Continuous Temperature Monitoring and Recording System
 - Schedule 6 Dioxins, Furans and Dioxin-like PCBs (Polychlorinated Biphenyls)
 - Schedule 7 Coke Oven Battery Observation Requirements
 - Schedule 8 Requirements for Public Reporting
- 70. "Shut-down" means an operating condition during which the operation of a By-product coke oven battery is decreased from normal operating conditions to an inoperative state;

- 71. "Site-Specific Standard" means an air standard, approved by a Director designated under section 35 of O. Reg. 419/05 and has the same meaning as in section 32 and section 35 of O. Reg. 419/05;
- 72. "Source Testing" means sampling and testing to measure emissions resulting from operating the test sources under conditions which yield the worst case emissions within the approved operating range of the test sources which satisfies paragraph 1 of subsection 11(1) of O. Reg. 419/05;
- 73. "Source Testing Code" means the Ontario Source Testing Code, dated June 2010, prepared by the Ministry, as amended;
- 74. "Start-up" means an operating condition during which the operation of a By-product coke oven battery is increased from an inoperative state to normal operating conditions;
- 75. "Technical Bulletin: Management Approaches for Industrial Fugitive Dust Sources" means the Ministry publication "Technical Bulletin: management approaches for industrial fugitive dust sources", March 8, 2017, as amended;
- 76. "Test Contaminants" means the contaminants identified in Schedule 3 of this Approval;
- 77. "Targeted Sources" means the sources of emissions identified in Schedule 3 of this Approval;
- 78. "Topside Port Lid" means a cover, removed during Charging, that is placed over the opening through which coal can be charged into a Coke Oven;
- 79. "Toxicologist" means a qualified professional currently active in the field of risk assessment and toxicology that has a combination of formal university education, training and experience necessary to assess contaminants;
- 80. "USEPA" means the United States Environmental Protection Agency;
- 81. "Visible Emissions" means any emission seen by the unaided (except for corrective lenses) eye, excluding steam or condensing water; and
- 82. "Written Summary Form" means the electronic questionnaire form, available on the Ministry website, and supporting documentation, that documents the activities undertaken at the Facility in the previous calendar year.

TERMS AND CONDITIONS

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

1. GENERAL

- 1. Except as otherwise provided by this Approval, the Facility shall be designed, developed, built, operated and maintained in accordance with the terms and conditions of this Approval and in accordance with the following Schedules attached hereto:
- Schedule 1 Supporting Documentation
- Schedule 2 Source Testing Procedure
- Schedule 3 Source Testing (Sources and Contaminants)
- Schedule 4 Continuous Emissions Monitoring and Recording System Opacity
- Schedule 5 Continuous Temperature Monitoring and Recording System
- Schedule 6 Dioxins, Furans and Dioxin-like PCBs (Polychlorinated Biphenyls)

- Schedule 7 Coke Oven Battery Observation Requirements
- Schedule 8 Requirements for Public Reporting

2. LIMITED OPERATIONAL FLEXIBILITY

- 1. Pursuant to section 20.6 (1) of the EPA and subject to Conditions 2.2 and 2.3 of this Approval, future construction, alterations, extensions or replacements are approved in this Approval if the future construction, alterations, extensions or replacements are Modifications to the Facility that:
 - a. are within the scope of the operations of the Facility as described in the Description Section of this Approval;
 - b. do not result in an increase of the Facility Production Limit above the level specified in the Description Section of this Approval; and
 - c. result in compliance with the performance limits as specified in Condition 4.
- 2. Condition 2.1 does not apply to,
 - a. the addition of any new Equipment with Specific Operational Limits or to the Modification of any existing Equipment with Specific Operational Limits at the Facility;
 - b. Modifications to the Facility that would be subject to the Environmental Assessment Act; or
 - c. Modifications to the Facility that would add or modify any Equipment subject to Guideline A-9 unless the Equipment is operated in compliance with the requirements of Guideline A-9 and with written certification signed and sealed by a Professional Engineer.
- 3. Condition 2.1 of this Approval shall expire December 19, 2023 unless this Approval is revoked prior to the expiry date. The Company may apply for renewal of Condition 2.1 of this Approval by including an ESDM Report and an Acoustic Assessment Report that describe the Facility as of the date of the renewal application.

3. REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION

- 1. Prior to making a Modification to the Facility that satisfies Condition 2.1.a, 2.1.b and 2.1.c, the Company shall prepare a proposed update to the ESDM Report to reflect the proposed Modification.
- 2. The Company shall request approval of an Acceptable Point of Impingement Concentration for a Compound of Concern if the Compound of Concern is not identified in the ACB list as belonging to the category "Benchmark 1" and a proposed update to an ESDM Report indicates that one of the following changes with respect to the concentration of the Compound of Concern may occur:
 - a. The Compound of Concern was not a Compound of Concern in the previous version of the ESDM Report and
 - i. the concentration of the Compound of Concern exceeds the concentration set out for the contaminant in the ACB list; or
 - ii. the Compound of Concern is not identified in the ACB list; or
 - b. The concentration of the Compound of Concern in the updated ESDM Report exceeds the higher of,

- i. the most recent Acceptable Point of Impingement Concentration, and
- ii. the concentration set out for the contaminant in the ACB list, if the contaminant is identified in that document.
- 3. The request required by Condition 3.2 shall propose a concentration for the Compound of Concern and shall contain an assessment, performed by a Toxicologist, of the likelihood of the proposed concentration causing an adverse effect at Points of Impingement.
- 4. If the request required by Condition 3.2 is a result of a proposed Modification described in paragraph 1 of this condition, the Company shall submit the request, in writing, to the Director at least 30 days prior to commencing to make the Modification. The Director shall provide written confirmation of receipt of this request to the Company.
- 5. If a request is required to be made under Condition 3.1 in respect of a proposed Modification described in Condition 3.1, the Company shall not make the Modification mentioned in Condition 3.1 unless the request is approved in writing by the Director.
- 6. If the Director notifies the Company in writing that the Director does not approve the request, the Company shall,
 - a. revise and resubmit the request; or
 - b. notify the Director that it will not be making the Modification.
- 7. The re-submission mentioned in Condition 3.6 shall be deemed a new submission under Condition 3.2.
- 8. If the Director approves the request, the Company shall update the ESDM Report to reflect the Modification.
- 9. Condition 3 does not apply if Condition 2.1 has expired.

4. PERFORMANCE LIMITS

- 1. Subject to Condition 4.2, the Company shall not discharge or cause or permit the discharge of a Compound of Concern into the air if,
 - a. the Compound of Concern is identified in the ACB list as belonging to the category "Benchmark 1" and the discharge results in the concentration at a Point of Impingement exceeding the Benchmark 1 concentration or a Site-Specific Standard for the Compound of Concern; or
 - b. the Compound of Concern is not identified in the ACB list as belonging to the category "Benchmark 1" and the discharge results in the concentration at a Point of Impingement exceeding the higher of,
 - i. if an Acceptable Point of Impingement Concentration exists, the most recent Acceptable Point of Impingement Concentration, and
 - ii. the concentration set out for the contaminant in the ACB list, if the contaminant is identified in that document.
- 2. Condition 4.1 does not apply if the benchmark set out in the ACB list has a 10-minute averaging period and no ambient monitor indicates an exceedance at a Point of Impingement where human activities regularly occur at a time when those activities regularly occur.
- 3. The Company shall:
 - a. ensure that the noise emissions from the Facility comply with the limits set in Ministry Publication NPC-300; and

- b. ensure that the Noise Control Measures are properly maintained and continue to provide the acoustical performance outlined in the Acoustic Assessment Report.
- 4. The Company shall ensure that the vibration emissions from the Facility comply with the limits set out in Ministry Publication NPC-207.
- 5. The Company shall operate any Equipment with Specific Operational Limits approved by this Approval in accordance with the Original ESDM Report and conditions in this Approval.
- 6. The Company shall ensure and verify through Source Testing that the Electric Arc Furnace is operated such that the toxicity equivalent concentration of dioxins and furans in the flue gases of the Electric Arc Furnace stack does not exceed 100 picograms per dry cubic metre, the limit set out in Guideline A-8, at the operating oxygen level at a reference temperature of 25 degrees Celsius and a reference pressure of 101.3 kilopascals. The toxicity equivalent concentration of dioxins and furans shall be calculated in accordance with the information and procedure set out in Schedule 6 of this Approval, or the latest calculation method established by the Ministry, whichever comes later.
- 7. The Company shall ensure that the Equipment is operated in compliance with the requirements and emission limits prescribed in O. Reg. 194/05.
- 8. The Company shall ensure that:
 - a. the #1 Melt Shop EAF Ladle Heater and Post Combustion Incinerator are operated to comply with the following requirements:
 - i. The combustion chamber of the Post Combustion Incinerator shall be preheated to a minimum of 760 degrees Celsius, as measured by the continuous temperature monitor and recording system prior to introducing the process exhaust gases;
 - ii. The temperature in the Post Combustion Incinerator as measured by the continuous temperature monitor and recording system, shall be maintained at a minimum of 760 degrees Celsius at all times when the #1 Melt Shop EAF Ladle Heater is loaded and curing and coking is in progress;
 - iii. The residence time of the combustion gases in the combustion chamber of the Post Combustion Incinerator shall not be less than 0.75 seconds at a minimum temperature of 760 degrees Celsius;
 - iv. The burner in the #1 Melt Shop EAF Ladle Heater shall be turned off, if the Post Combustion Incinerator burner fails;
 - v. No substances containing chlorinated and/or fluorinated compounds, including polyvinyl chloride and teflon, shall be loaded into the #1 Melt Shop EAF Ladle Heater and Post Combustion Incinerator; and
 - vi. The concentration of Organic Matter in the undiluted gas emitted from the Post Combustion incinerator, being an average of ten measurements taken at approximately one minute intervals, shall not be greater than 100 parts per million by volume.
 - b. the KOBM Ladle Heater and Post Combustion Incinerator are operated to comply with the following requirements:
 - i. The combustion chamber of the Post Combustion Incinerator shall be preheated to a minimum of 760 degrees Celsius, as measured by the continuous temperature monitor and recording system prior to introducing the process exhaust gases;
 - ii. The temperature in the Post Combustion Incinerator as measured by the continuous temperature monitor and recording system, shall be maintained at a minimum of

- 760 degrees Celsius at all times when the KOBM Ladle Heater is loaded and curing and coking is in progress;
- iii. The residence time of the combustion gases in the combustion chamber of the Post Combustion Incinerator shall not be less than 0.75 seconds at a minimum temperature of 760 degrees Celsius;
- iv. No substances containing chlorinated and/or fluorinated compounds, including polyvinyl chloride and teflon, shall be loaded into the KOBM Ladle Heater and Post Combustion Incinerator; and
- v. The concentration of Organic Matter in the undiluted gas emitted from the Post Combustion incinerator, being an average of ten measurements taken at approximately one minute intervals, shall not be greater than 100 parts per million by volume.
- 9. The Company shall comply with the Coke Oven Battery Observation Requirements outlined in Schedule 7 of this Approval.

5. DOCUMENTATION REQUIREMENTS

- 1. The Company shall maintain an up-to-date Log.
- 2. No later than March 31 in each year, the Company shall update the Acoustic Assessment Report and shall update the ESDM Report in accordance with section 26 of O. Reg. 419/05 so that the information in the reports is accurate as of December 31 in the previous year.
- 3. The Company shall make the Emission Summary Table (see section 27 of O. Reg. 419/05) and Acoustic Assessment Summary Table available for examination by any person, without charge, by posting it on the Internet or by making it available during regular business hours at the Facility.
- 4. The Company shall, within three (3) months after the expiry of Condition 2.1 of this Approval, update the ESDM Report and the Acoustic Assessment Report such that the information in the reports is accurate as of the date that Condition 2.1 of this Approval expired.
- 5. Conditions 5.1 and 5.2 do not apply if Condition 2.1 has expired.

6. REPORTING REQUIREMENTS

- 1. Subject to Condition 6.2, the Company shall provide the Director no later than June 30 of each year, a Written Summary Form to be submitted through the Ministry's website that shall include the following:
 - a. a declaration of whether the Facility was in compliance with section 9 of the EPA, O. Reg. 419/05 and the conditions of this Approval;
 - b. a summary of each Modification satisfying Condition 2.1.a. and 2.1.b. that took place in the previous calendar year that resulted in a change in the previously calculated concentration at a Point of Impingement for any Compound of Concern or resulted in a change in the sound levels reported in the Acoustic Assessment Summary Table at any Point of Reception; and
 - c. The most current written certification signed and sealed by a Professional Engineer as required by this Approval.
- 2. Condition 6.1 does not apply if Condition 2.1 has expired.
- 3. The Company shall maintain and keep up-to-date a dedicated internet webpage that provides the following information to any member of the public:

- a. contact information for environmental complaints; and
- b. an electronic copy of the most up-to-date executive summary of the ESDM Report, including the Emission Summary Table, prepared in accordance with O. Reg. 419/05, and that includes reference to the corresponding Log that describes the Modification to the Facility.

7. OPERATION AND MAINTENANCE

- 1. The Company shall prepare and implement operating procedures and maintenance programs for all Processes with Significant Environmental Aspects, which shall specify as a minimum:
 - a. frequency of inspections and scheduled preventative maintenance;
 - b. procedures to prevent upset conditions;
 - c. procedures to minimize all fugitive emissions;
 - d. procedures to prevent and/or minimize odorous emissions;
 - e. procedures to prevent and/or minimize noise emissions; and
 - f. procedures for record keeping activities relating to the operation and maintenance programs.
- 2. The Company shall ensure that all Processes with Significant Environmental Aspects are operated and maintained in accordance with this Approval, the operating procedures and maintenance programs.

8. COMPLAINTS RECORDING AND REPORTING

- 1. If at any time, the Company receives an environmental complaint from the public regarding the operation of the Equipment approved by this Approval, the Company shall take the following steps:
 - a. Record and number each complaint, either electronically or in a log book. The record shall include include the following information: the time and date of the complaint and incident to which the complaint relates, the nature of the complaint, wind direction at the time and date of the incident to which the complaint relates and, if known, the address of the complainant.
 - b. Notify the District Manager of the complaint within two (2) business days after the complaint is received, or in a manner acceptable to the District Manager.
 - c. Initiate appropriate steps to determine all possible causes of the complaint, and take the necessary actions to appropriately deal with the cause of the subject matter of the complaint.
 - d. Complete and retain on-site a report written within five (5) business days of the complaint date. The report shall list the actions taken to appropriately deal with the cause of the compliant and set out steps to be taken to avoid the recurrence of similar incidents.

9. RECORD KEEPING REQUIREMENTS

1. Any information requested by any employee in or agent of the Ministry concerning the Facility and its operation under this Approval, including, but not limited to, any records required to be kept by this Approval, shall be provided to the employee in or agent of the Ministry, upon request, in a timely manner.

- 2. Unless otherwise specified in this Approval, the Company shall retain, for a minimum of five (5) years from the date of their creation all reports, records and information described in this Approval, including,
 - **a.** a copy of the Original ESDM Report and each updated version;
 - **b.** a copy of each version of the Acoustic Assessment Report;
 - **c.** supporting information used in the emission rate calculations performed in the ESDM Reports and Acoustic Assessment Reports;
 - **d.** the records in the Log;
 - **e.** copies of each Written Summary Form provided to the Ministry under Condition 6.1 of this Approval;
 - **f.** the operating procedures and maintenance programs, including records on the maintenance, repair and inspection of Equipment related to all Processes with Significant Environmental Aspects;
 - **g.** all records related to environmental complaints made by the public as required by Condition 8 of this Approval;
 - **h.** all records related to the best management practice plans and programs required under conditions 11, 12 and 13 of this Approval;
 - i. all records related to Opacity Measurement Plan required under condition 14 of this Approval;
 - j. all records related to Source Testing required under condition 15 of this Approval; and
 - **k.** all records related to the CEM System required under condition 16 of this Approval.

10. REQUIREMENTS FOR PUBLIC REPORTING

1. The Company shall comply with the Requirements for Public Reporting outlined in Schedule 8 of this Approval.

11. BEST MANAGEMENT PRACTICES PLAN FOR FUGITIVE DUST

- 1. The Company shall ensure that reasonable efforts are made to keep access roads used by vehicles to enter and leave the Facility free of mud, dirt, dust and waste.
- **2.** The Company shall:
 - **a.** review and evaluate on an annual basis, the Best Management Practices Plan for Fugitive Dust. The Best Management Practices Plan for Fugitive Dust shall be prepared consistent with the Ministry document "Technical Bulletin: Management Approaches for Industrial Fugitive Dust Sources", as appropriate;
 - **b.** record the results of each annual review and update as required the Best Management Practices Plan for Fugitive Dust within two (2) months of the completion of the annual review;
 - **c.** maintain the updated Best Management Practices Plan for Fugitive Dust at the Facility; and
 - **d.** implement, at all times, the most recent version of the Best Management Practices Plan for Fugitive Dust.

- 3. The Company shall record, either electronically or in a log book, each time a specific preventative and control measure described in the Best Management Practices Plan for Fugitive Dust is implemented. The Company shall record, as a minimum:
 - a. the date when each emission control measure is implemented, including a description of the control measure;
 - b. the date when each new preventative measure or operating procedure to minimize emissions is implemented, including a description of the preventative measure or operating procedure; and
 - c. the date, time of commencement, and time of completion of each periodic activity conducted to minimize emissions, including a description of the preventative measure /procedure and the name of the individual performing the periodic activity.

12. BEST MANAGEMENT PRACTICES PLAN FOR ODOUR

- 1. The Company shall implement all reasonable measures to minimize odorous emissions from all potential sources at the Facility.
- 2. The Company shall:
 - a. update the Best Management Practices Plan for Odour for the control of odorous emissions, in consultation with the District Manager, not later than six (6) months from the date of this Approval. The Best Management Practices Plan for Odour shall include, but not be limited to the following:
 - i. identification of the main sources of odorous emissions;
 - ii. identification of the nearest Sensitive Receptor to each of the main sources of odorous emissions;
 - iii. potential causes for odorous emissions resulting from these sources;
 - iv. preventative and control measures in place or under development to minimize the likelihood of high odorous emissions from the sources of odour identified above. Details of the preventative and control measures shall include:
 - I. a description of the control equipment to be installed;
 - II. a description of the preventative procedures to be implemented; and/or
 - III. the frequency of occurrence of periodic preventative activities, including material application rates, as applicable.
 - v. an implementation schedule for the Best Management Practices Plan for Odour, including training for Facility personnel; and
 - vi. inspection and maintenance procedures and monitoring initiatives to ensure effective implementation of the preventative and control measures.
 - b. review and evaluate on an annual basis, the Best Management Practices Plan for Odour;
 - c. record the results of each annual review and update as required the Best Management Practices Plan for Odour within two (2) months of the completion of the annual review;
 - d. maintain the updated Best Management Practices Plan for Odour at the Facility;
 - e. implement, at all times, the most recent version of the Best Management Practices Plan for Odour.

- 3. The Company shall record, either electronically or in a log book, each time a specific preventative and control measure described in the Best Management Practices Plan for Odour is implemented. The Company shall record, as a minimum:
 - a. the date when each emission control measure is implemented, including a description of the control measure;
 - b. the date when each new preventative measure or operating procedure to minimize emissions is implemented, including a description of the preventative measure or operating procedure; and
 - c. the date, time of commencement, and time of completion of each periodic activity conducted to minimize emissions, including a description of the preventative measure /procedure and the name of the individual performing the periodic activity.

13. LEAK DETECTION AND REPAIR PROGRAM

- 1. The Company shall:
 - a. Maintain and implement an LDAR Program, which shall include, but not be limited to the following:
 - i. identification of the main sources of emissions to be included in the LDAR Program;
 - ii. schedule for implementation of LDAR Program;
 - iii. the methods used to determine leaking components;
 - iv. threshold concentrations for qualifying leaks;
 - v. frequency of surveys to identify leaks;
 - vi. sample inventory of equipment to be monitored;
 - vii. repair protocols and time period(s) during which leaking components will be repaired;
 - viii. consideration of enhanced repair activities for repeat leaking components;
 - ix. examples of how repaired components will be tracked and re-monitored;
 - x. continuous improvement through the review of results and implementation of corrective actions:
 - xi. details on the type of information and documentation that will be maintained and recorded for the LDAR Program;
 - b. review and evaluate on an annual basis, the LDAR Program;
 - c. record the results of each annual review and update as required the LDAR Program within two (2) months of the completion of the annual review;
 - d. maintain the updated LDAR Program at the Facility;
 - e. implement, at all times, the most recent version of the LDAR Program.
- 2. The Company shall record, in a log book or electronically, details on the implementation and management of LDAR Program.
- 3. The Company shall submit to the Director a LDAR Program Report by December 31st of each year.

14. OPACITY MEASUREMENT PLAN

- 1. The Company shall develop and implement, not later than six (6) months from the date of this Approval, an Opacity Measurement Plan to perform opacity measurements of emissions that obstruct the passage of light from all potential sources at the Facility. The Opacity Measurement Plan shall be developed in consultation with the District Manager,in accordance with the Opacity Technical Bulletin where applicable, and shall include, but not be limited to, detailed information on the opacity sources, opacity measurement method, schedule for measurement and training of Facility personnel to perform and record the opacity measurements.
- 2. Details on the implementation of the Opacity Measurement Plan and the results of the opacity measurements carried out in accordance with the Opacity Measurement Plan shall be recorded electronically or in a log-book.

15. SOURCE TESTING

- 1. The Company shall perform Source Testing in accordance with the procedures in Schedule 2, to determine the concentrations of the Test Contaminants from the Targeted Sources at the frequency specified in Schedule 3.
- 2. The frequency of Source Testing shall be confirmed in writing with the District Manager.

16. CONTINUOUS MONITORING AND RECORDING

- 1. The Company shall install and maintain operational a CEM System to continuously monitor opacity from #4, #5 and #6 coke battery stacks. The CEM System for opacity monitoring shall be equipped with continuous recording devices and shall comply with requirements specified in Schedule 4 of this Approval.
- 2. The Company shall continuously monitor and record the temperature in:
 - a. the Post Combustion incinerator of the #1 Melt Shop EAF Ladle Heater when the #1 Melt Shop EAF Ladle Heater and Post Combustion Incinerator are in operation; and
 - b. the KOBM Ladle Heater when the #1 Melt Shop EAF Ladle Heater and Post Combustion Incinerator are in operation.
- 3. The continuous temperature monitor and recording devices in Condition 16.2 shall comply with the requirements specified in Schedule 5 of this Approval.
- 4. The Company shall record the actual operating temperatures in the Post Combustion incinerators in Condition 16.2 once every half hour.

17. ACOUSTIC AUDIT

- 1. The Company shall carry out Acoustic Audit measurements on the actual noise emissions due to the operation of the Facility. The Company:
 - a. shall carry out Acoustic Audit measurements in accordance with the procedures in Publication NPC-103;
 - b. shall submit an Acoustic Audit Report on the results of the Acoustic Audit, prepared by an Independent Acoustical Consultant, in accordance with the requirements of Publication NPC-233, to the District Manager and the Director, not later June 30, 2022.

2. The Director:

- a. may not accept the results of the Acoustic Audit if the requirements of Publication NPC-233 were not followed;
- b. may require the Company to repeat the Acoustic Audit if the results of the Acoustic Audit are found unacceptable to the Director.

REASONS

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

1. GENERAL

Condition No. 1 is included to require the Approval holder to build, operate and maintain the Facility in accordance with the Supporting Documentation in Schedule 1 considered by the Director in issuing this Approval.

2. LIMITED OPERATIONAL FLEXIBILITY, REQUIREMENT TO REQUEST AN ACCEPTABLE POINT OF IMPINGEMENT CONCENTRATION AND PERFORMANCE LIMITS

Conditions No. 2, 3 and 4 are included to limit and define the Modifications permitted by this Approval, and to set out the circumstances in which the Company shall request approval of an Acceptable Point of Impingement Concentration prior to making Modifications. The holder of the Approval is approved for operational flexibility for the Facility that is consistent with the description of the operations included with the application up to the Facility Production Limit. In return for the operational flexibility, the Approval places performance based limits that cannot be exceeded under the terms of this Approval. Approval holders will still have to obtain other relevant approvals required to operate the Facility, including requirements under other environmental legislation such as the Environmental Assessment Act.

3. DOCUMENTATION REQUIREMENTS

Condition No. 5 is included to require the Company to maintain ongoing documentation that demonstrates compliance with the performance limits as specified in condition 4 of this Approval and allows the Ministry to monitor on-going compliance with these performance limits. The Company is required to have an up to date ESDM Report and Acoustic Assessment Report that describe the Facility at all times and make the Emission Summary Table and Acoustic Summary Table from these reports available to the public on an ongoing basis in order to maintain public communication with regard to the emissions from the Facility.

4. REPORTING REQUIREMENTS

Condition No. 6 is included to require the Company to provide a yearly Written Summary Form to the Ministry, to assist the Ministry with the review of the site's compliance with the EPA, the regulations and this Approval.

5. OPERATION AND MAINTENANCE

Condition No. 7 is included to require the Company to properly operate and maintain the Processes with Significant Environmental Aspects to minimize the impact to the environment from these processes.

6. COMPLAINTS RECORDING AND REPORTING PROCEDURE

Condition No. 8. is included to require the Company to respond to any environmental complaints regarding the operation of the Equipment, according to a procedure that includes methods for preventing recurrence of similar incidents and a requirement to prepare and retain a written report.

7. RECORD KEEPING REQUIREMENTS

Condition No. 9 is included to require the Company to retain all documentation related to this Approval and provide access to employees in or agents of the Ministry, upon request, so that the Ministry can determine if a more detailed review of compliance with the performance limits as specified in Condition 4 of this Approval is necessary.

8. REQUIREMENTS FOR PUBLIC REPORTING

Condition No. 10 is included to require the Company to involve and inform the public on the environmental performance of the Facility.

9. **BEST MANAGEMENT PRACTICES PLANS AND LEAK DETECTION AND REPAIR**Condition Nos. 11, 12 and 13 are included to emphasize that the Equipment must be maintained and operated according to a procedure that will result in compliance with the EPA, the Regulations and this Approval, and to require the Company to keep records and to provide information to staff of the Ministry so that compliance with the EPA, the regulations and this Approval can be verified.

10. OPACITY MEASUREMENT PLAN, SOURCE TESTING AND CONTINUOUS MONITORING AND RECORDING

Condition Nos. 14, 15 and 16 are included to require the Company to gather and retain accurate information so that compliance with the EPA, the regulations and this Approval can be verified.

11. ACOUSTIC AUDIT

Condition No. 17 is included to require the Company to gather accurate information and submit an Acoustic Audit Report in accordance with procedures set in the Ministry's noise guidelines, so that the environmental impact and subsequent compliance with this Approval can be verified.

APPEAL PROVISIONS

In accordance with Section 139 of the *Environmental Protection Act*, you may by written notice served upon me and the Ontario Land Tribunal, within 15 days after the service of this notice, require a hearing by the Tribunal. You must also provide notice to, the Minister of the Environment, Conservation and Parks in accordance with Section 47 of the *Environmental Bill of Rights*, 1993 who will place notice of your appeal on the Environmental Registry. Section 142 of the *Environmental Protection Act* provides that the notice requiring the hearing ("the Notice") shall state:

- I. 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;
- II. 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:

- I. The name of the appellant;
- II. The address of the appellant;
- III. The environmental compliance approval number;

- IV. The date of the environmental compliance approval;
- V. The name of the Director, and;
- VI. The municipality or municipalities within which the project is to be engaged in.

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

This Notice must be served upon:

Registrar* The Minister of the The Director appointed for the purposes of Part II.1 of the Environmental **Ontario Land Tribunal** Environment. 655 Bay Street, Suite Conservation and Protection Act 1500 Ministry of the Environment, **Parks** and and Conservation and Parks 777 Bay Street, 5th Toronto, Ontario M5G 1E5 Floor 135 St. Clair Avenue West, 1st Floor Toronto, Ontario OLT.Registrar@ontario. Toronto, Ontario M7A 2J3 M4V 1P5 ca

This instrument is subject to Section 38 of the *Environmental Bill of Rights, 1993*, that allows residents of Ontario to seek leave to appeal the decision on this instrument. Residents of Ontario may seek leave to appeal within 15 days from the date this decision is placed on the Environmental Registry. By accessing the Environmental Registry at <a href="mailto:environmental-e

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

Dated at Toronto this 17th day of September, 2021

Miroslav Ubovic

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Director

appointed for the purposes of Part II.1 of the Environmental Protection Act

c: Julie Wedzinga, ArcelorMittal Dofasco G.P. Stephen Burt, MECP Hamilton District Office Julie Wedzinga, ArcelorMittal Dofasco G.P.

The following schedules are a part of this environmental compliance approval:

^{*} Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or www.olt.gov.on.ca

Supporting Documentation

- 1. Environmental Compliance Approval Application, dated October 22, 2014, signed by Jim Stirling and submitted by the Company;
- 2. Emission Summary and Dispersion Modelling Report, prepared by ArcelorMittal Dofasco MP Inc. and ArcelorMittal Canada Inc. and dated October 27, 2017;
- 3. Additional air emissions and dispersion modelling data and clarifications provided by ArcelorMittal Dofasco MP Inc. and ArcelorMittal Canada Inc. on October 1, 2018 and October 31, 2018.
- 4. Acoustic Assessment Report, prepared by Hatch Associates Limited, dated December 4, 2015 and signed by Mervin Choy, P.Eng., which was subsequently revised on July 10, 2017.

Source Testing Procedure

- 1. The Company shall submit, not later than two (2) months before the intended date of Source Testing, to the Manager a Pre-Test Plan for the Source Testing required under this Approval. The Company shall finalize the Pre-Test Plan in consultation with the Manager.
- 2. The Company shall not commence the Source Testing required under this Approval until the Manager has approved the Pre-Test Plan.
- 3. The Company shall complete the Source Testing not later than six (6) months after the Manager has approved the Pre-Test Plan or within a period as directed or agreed to in writing by the Manager and the District Manager.
- 4. The Company shall notify the Manager, the District Manager and the Director in writing of the location, date and time of any impending Source Testing required by this Approval, at least fifteen (15) days prior to the Source Testing.
- 5. The Company shall submit a report (hardcopy and electronic format) on the Source Testing to the Manager, the District Manager and the Director not later than four (4) months after completing the Source Testing. The report shall be in the format described in the Source Testing Code, and shall also include, but not be limited to:
 - a. an executive summary;
 - b. an identification of the applicable North American Industry Classification System code (NAICS) for the Facility;
 - c. records of operating conditions at the time of Source Testing, including but not limited to the following:
 - i. process description, records of production rate and heat duration during the Source Testing;
 - ii. records of operating conditions, including but not limited to:
 - I. records of all CEM System, including temperature and pressure sensors, during Source Testing on the Electric Arc Furnace;
 - II. liquid and/or reagent and gas flow rates for all components of the air pollution control system(s);
 - III. any other records that may affect the evaluation of the Source Testing report;
 - IV. operational description of the general building ventilation at the time of testing;
 - d. results of Source Testing, including the emission rate, emission concentration, and relevant emission factor of the Test Contaminants from the Targeted Sources; and
 - e. a tabular comparison of Source Testing results, the monitoring data from the CEM System, and the records of operating conditions for the Targeted Sources and Test Contaminants to the limits defined under this Approval and the original emission estimates described in the Company's application and the ESDM Report.
- 6. The Director may not accept the results of the Source Testing if:
 - a. the Source Testing Code or the requirements of the Manager were not followed;

- b. the Company did not notify the Manager, the District Manager and Director of the Source Testing; or
- c. the Company failed to provide a complete report on the Source Testing.
- 7. If the Director does not accept the results of the Source Testing, the Director may require re-testing. If re-testing is required, the Pre-Test Plan strategies need to be revised and submitted to the Manager for approval. The actions taken to minimize the possibility of the Source Testing results not being accepted by the Director must be noted in the revision.
- 8. If the Source Testing results are higher than the emission estimates in the Company's ESDM Report, the Company shall update their ESDM Report in accordance with Section 26 of O. Reg. 419/05 with Source Testing Report the results from the Source Testing report and make these records available for review by staff of the Ministry upon request. The updated Emission Summary Table from the updated ESDM Report shall be submitted with the report on the Source Testing.

Source Testing - Sources and Contaminants

Targeted Sources	Test Contaminants	Source Testing Frequency
lArc	dioxins and furans	Either: (a) once every calendar year; or (b) once every two (2) calendar years, if the results of the annual Source Testing indicate that the concentration of dioxins and furans has remained consistently below 32 pg/Rm3 expressed as toxicity equivalent concentration (TEQ) for five (5) consecutive calendar years, in consultation with the District Manager.

Continuous Emissions Monitoring and Recording

PARAMETER: Opacity

INSTALLATION:

The continuous opacity monitor shall be installed at an accessible location where the measurements are representative of the actual opacity of the gases leaving the flare and shall meet the following design and installation specifications.

PARAMETERS	SPECIFICATION
Wavelength at Peak Spectral Response (nanometres, nm)	500 to 600
Wavelength at Mean Spectral Response (nm)	500 to 600
Detector Angle of View	<= 5 degrees
Angle of Projection	<= 5 degrees
Range (percent of opacity)	0 to 100

PERFORMANCE:

The Continuous Opacity Monitor shall meet the following minimum performance specifications for the following parameters.

PARAMETERS	SPECIFICATION
Span Value (percent opacity)	2 times the average normal opacity of the source
Calibration Error	<= 3 percent opacity
Attenuator Calibration	<= 2 percent opacity
Response Time (95 percent response to a step change)	<= 10 seconds
Schedule for Zero and Calibration Checks	daily minimum
Procedure for Zero and Calibration Checks	all system components checked
Zero Calibration Drift (24-hours)	<= 2 percent opacity
Span Calibration Drift (24-hours)	<= 2 percent opacity
Conditioning Test Period	>= 168 hours without corrective maintenance
Operational Test Period	>= 168 hours without corrective maintenance

CALIBRATION:

The monitor shall be calibrated, to ensure that it meets the drift limits specified above, during the periods of the operation of the Equipment. The results of all calibrations shall be recorded at the time of calibration.

DATA RECORDER:

The data recorder must be capable of registering continuously the measurement of the monitor with an accuracy of 0.5 percent of a full scale reading or better and with a time resolution of 30 seconds or better.

RELIABILITY:

The monitor shall be operated and maintained so that accurate data is obtained during a minimum of 95 percent of the time, on a monthly basis, when the Equipment is in operation.

Continuous Temperature Monitoring and Recording System

INSTALLATION:

Unless otherwise specified in this Approval, the sample point for the continuous temperature monitoring and recording system shall be located at a location where the measurements are representative of the minimum temperature of the gases leaving the combustion chamber.

PERFORMANCE:

The continuous temperature monitoring and recording system shall meet the following minimum performance specifications for the following parameters.

PARAMETERS	SPECIFICATION
Type:	shielded "K" type thermocouple, or equivalent
Accuracy:	±1.5 percent of the minimum gas temperature

DATA RECORDER:

Unless otherwise specified in this Approval, the data recorder must be capable of registering continuously the measurement of the monitoring system without a significant loss of accuracy and with a time resolution of 1 minute or better.

RELIABILITY:

The monitoring system shall be operated and maintained so that accurate data is obtained during a minimum of 95 percent of the time for each calendar quarter.

Dioxins, Furans and Dioxin-like PCBs (Polychlorinated Biphenyls)

Toxicity equivalency factors (TEFs) are applied to 29 isomers of dioxins, furans and dioxin-like PCBs to convert them into 2,3,7,8-CDD (tetrachlorodibenzo-p-dioxin) toxicity equivalents (TEQ). The conversion involves multiplying the concentration of each isomer by the appropriate TEF to yield the TEQ for this isomer. Summing the individual TEQ values for each of the isomers provides the total toxicity equivalent level for the sample mixture.

A table listing the isomers and their TEFs can be found in the Ministry publication titled "Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants", as amended from time to time.

2 1, 3 1, 4 1,	3,7,8-Tetrachlorodibenzo-p-dioxin [2,3,7,8-TCDD] 2,2,3,7,8-Pentachlorodibenzo-p-dioxin [1,2,3,7,8-PeCDD] 3,2,3,4,7,8-Hexachlorodibenzo-p-dioxin [1,2,3,4,7,8-HxCDD] 3,2,3,6,7,8-Hexachlorodibenzo-p-dioxin [1,2,3,6,7,8-HxCDD] 3,2,3,7,8,9-Hexachlorodibenzo-p-dioxin [1,2,3,7,8,9-HxCDD]	6 57653-85- 7	1 0.1
3 1,	,2,3,4,7,8-Hexachlorodibenzo-p-dioxin [1,2,3,4,7,8-HxCDD] ,2,3,6,7,8-Hexachlorodibenzo-p-dioxin [1,2,3,6,7,8-HxCDD]	4 39227-28- 6 57653-85- 7	0.1
4 1,	,2,3,6,7,8-Hexachlorodibenzo-p-dioxin [1,2,3,6,7,8-HxCDD]	6 57653-85- 7	
	,2,3,6,/,8-Hexachlorodibenzo-p-dioxin [1,2,3,6,/,8-HxCDD]	7	
5 1,	,2,3,7,8,9-Hexachlorodibenzo-p-dioxin [1,2,3,7,8,9-HxCDD]		0.1
		19408-74- 3	0.1
6 1,	,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin [1,2,3,4,6,7,8-HpCDD]	35822-46- 9	0.01
7 1,	,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin [1,2,3,4,6,7,8,9-OCDD]	3268-87-9	0.0003
8 2,	,3,7,8-Tetrachlorodibenzofuran [2,3,7,8-TCDF]	51207-31- 9	0.1
9 1	,2,3,7,8-Pentachlorodibenzofuran [1,2,3,7,8-PeCDF]	57117-41- 6	0.03
10 2,	3,4,7,8-Pentachlorodibenzofuran [2,3,4,7,8-PeCDF]	57117-31-4	0.3
11 1,	,2,3,4,7,8-Hexachlorodibenzofuran [1,2,3,4,7,8-HxCDF]	70648-26-9	0.1
12 1,	,2,3,6,7,8-Hexachlorodibenzofuran [1,2,3,6,7,8-HxCDF]	57117-44-9	0.1
13 1,	,2,3,7,8,9-Hexachlorodibenzofuran [1,2,3,7,8,9-HxCDF]	72918-21-9	0.1
14 2,	3,4,6,7,8-Hexachlorodibenzofuran [2,3,4,6,7,8-HxCDF]	60851-34- 5	0.1
15 1,	,2,3,4,6,7,8-Heptachlorodibenzofuran [1,2,3,4,6,7,8-HpCDF]	67562-39-4	0.01
16 1,	2,3,4,7,8,9-Heptachlorodibenzofuran [1,2,3,4,7,8,9-HpCDF]	55673-89- 7	0.01
17 1,	7 3 4 6 7 X Y-Octachlorodibenzoturan II 7 3 4 6 7 X Y-OCTIBL	39001-02- 0	0.0003
18 3,	3',4,4'-Tetrachlorobiphenyl [3,3',4,4'-tetraCB (PCB 77)]	32598-13-3	0.0001
19 3,	,4,4',5- Tetrachlorobiphenyl [3,4,4',5-tetraCB (PCB 81)]	70362-50-4	0.0003
3,	3',4,4',5- Pentachlorobiphenyl (PCB 126) [3,3',4,4',5-pentaCB (PCB		

20	126)]	57465-28-8	0.1
21	3,3',4,4',5,5'- Hexachlorobiphenyl [3,3',4,4',5,5'-hexaCB (PCB 169)]	32774-16-6	0.03
22	2,3,3',4,4'- Pentachlorobiphenyl [2,3,3',4,4'-pentaCB (PCB 105)]	32598-14-4	0.00003
23	2,3,4,4',5- Pentachlorobiphenyl [2,3,4,4',5-pentaCB (PCB 114)]	74472-37-0	0.00003
24	2,3',4,4',5- Pentachlorobiphenyl [2,3',4,4',5-pentaCB (PCB 118)]	31508-00-6	0.00003
25	2',3,4,4',5- Pentachlorobiphenyl [2',3,4,4',5-pentaCB (PCB 123)]	65510-44-3	0.00003
26	2,3,3',4,4',5- Hexachlorobiphenyl [2,3,3',4,4',5-hexaCB (PCB 156)]	38380-08-4	0.00003
27	2,3,3',4,4',5'- Hexachlorobiphenyl [2,3,3',4,4',5'-hexaCB (PCB 157)]	69782-90-7	0.00003
28	2,3',4,4',5,5'- Hexachlorobiphenyl [2,3',4,4',5,5'-hexaCB (PCB 167)]	52663-72-6	0.00003
29	2,3,3',4,4',5,5'- Heptachlorobiphenyl [2,3,3',4,4',5,5'-heptaCB (PCB 189)]	39635-31-9	0.00003

NOTE:

The TEF scheme is intended to be used with isomer specific analytical results. In cases where results are reported by congener group only, staff at Ministry's Technical Assessment and Standards Development Branch shall be contacted for appropriate procedures to convert non-isomer specific data to TEQs.

Coke Oven Battery Observation Requirements

Part 1: Application

- 1. For the purpose of this Schedule, a Charge of a Coke Oven commences when coal begins to flow into the Coke Oven through a topside port and ends when the last topside port is re-capped.
- 2. For the purpose of this Schedule, a Push commences with the first detectable movement of the coke mass being removed from the Coke Oven and ends when the quench car carrying the coke enters the quench tower.
- 3. For the purpose of this Schedule, a Quench begins when the quench car enters the quench tower and ends when the quench car exits the quench tower.

Part 2: Work Ordered

Visible Emission Limits - Doors, Lids, Offtakes and Charging

Item 2.1

- 1. Subject to Item 2.15, the Company shall comply with the rules set out in paragraph 2.
- 2. Each By-product coke oven battery at the Facility shall be operated in a manner that complies with the rules set out in Columns 1, 2 and 3 of Table 1.

Table 1 – Daily 30-day Rolling Average Per Cent Leaking Doors, Lids and Offtakes

Per Cent Leaking Doors	Daily 30-day Rolling Average Per Cent Leaking Topside	Column 3 Daily 30-day Rolling Average Per Cent Leaking Offtake
The daily 30-day rolling average per cent leaking doors	The daily 30-day rolling average per cent leaking Topside Port Lids as calculated in accordance with Item 2.4 shall not exceed 0.4%	Systems (PLO _(30-day)) The daily 30-day rolling average per cent leaking Offtake Systems as calculated in accordance with Item 2.4 shall not exceed 2.5%.

Item 2.2

Subject to Item 2.15, the Company shall comply with the following rule:

1. Each By-product coke oven battery at the Facility shall be operated in a manner that results in the daily 30-day rolling log average of seconds of Visible Emissions for the By-product coke oven battery during Charging, calculated in accordance with Item 2.4, not exceeding 12 seconds.

Item 2.3

The Company shall ensure that, the District Manager is notified in writing of any failure to comply with Item 2.1 or 2.2 as soon as practicable following the date of the failure to comply. The notice shall include the following information:

- 1. The first and last date of the 30-day period on which the calculation mentioned in Item 2.1 or 2.2, as applicable, was based.
- 2. The value of the result of the calculation that indicated the failure to comply.
- 3. Identification of the By-product coke oven battery for which the calculation that indicated failure to comply was performed.
- 4. Identification of each Coke Oven for which an observation was used in the calculation that indicated the failure to comply
- 5. Any relevant information regarding the cause of the failure to comply, if known.
- 6. If the cause of the failure to comply is not known, an assessment of the most likely cause based on the best information available and an explanation of steps that have been taken or will be taken to determine the cause.

Visible Emissions - Observation and Calculation Item 2.4

- 1. Subject to paragraph 2 and Item 2.15, for each By-product coke oven battery at the Facility, the Company shall ensure that each day:
 - i. Visible Emissions from the following sources of contaminant are observed, determined and recorded in accordance with Method 303:
 - A. Charging systems during Charging;
 - B. Doors, Topside Port Lids and Offtake Systems on Coke Ovens; and
 - C. Collecting Mains; and
 - ii. the following calculations are made in accordance with Method 303:
 - A. The per cent leaking doors for a day (PLD).
 - B. The daily 30-day rolling average per cent leaking doors (PLD_(30-day)).
 - C. The per cent leaking Topside Port Lids for a day (PLL).
 - D. The daily 30-day rolling average of per cent leaking Topside Port Lids (PLL_(30-day)).
 - E. The per cent leaking Offtake Systems for a day (PLO).
 - F. The daily 30-day rolling average of per cent leaking Offtake Systems (PLO_(30-day)).
 - G. The daily 30-day rolling log average of seconds of Visible Emissions during Charging.
- 2. Subject to paragraph 3, reference to a day in paragraph 1 includes, at minimum, each of the following days:
 - i. Each Business Day in a calendar year.
 - ii. At least ten Saturdays in a calendar year.
 - iii. At least ten Sundays in a calendar year.

- 3. The District Manager may specify a different set of days than the days set out in paragraph 2 for a By-product coke oven battery if the Director is of the opinion that no failure to comply with Item 2.1 or 2.2 has occurred in the past 12 months with respect to the battery and the battery specified is operating properly.
- 4. For the purpose of this Schedule, a reference to "63.309 (c)(1) of this part" in paragraphs 11.1.1 and 11.2.1 of Method 303 is a reference to 40 CFR 63.309 (c) (1).
- 5. For the purpose of this Schedule, a person will be considered to be a certified observer under Method 303 if,
 - i. the person is a certified observer under Method 303, or
 - ii. the person,
 - A. has met all of the certification requirements, including recertification requirements where applicable, set out in section 10 of Method 303 except for the requirement set out in section 10.1.3 of Method 303 to have the composition of the panel approved by the USEPA,
 - B. the Director waived the requirement mentioned in sub-subparagraph A in writing, and
 - C. the composition of the panel mentioned in sub-subparagraph A was approved by the Director.
- 6. For the purpose of this Schedule, the requirement for a certified observer (Method 303) to be employed by the administrator, as set out in 40 CFR 63.301, does not apply.
- 7. The Ministry is not an enforcement agency for the purpose of Section 10.3 of Method 303.
- 8. For each certified observer who makes an observation for the purpose of paragraph 1, the Company shall ensure that a record reflecting the successful completion of the proficiency test referred to in Method 303 is retained at the Facility for a period of two (2) years.
- 9. For a certified observer described under subparagraph 5 ii, the checklist mentioned in sections 10.1.3 and 10.3 of Method 303 may be a checklist provided by the District Manager.
- 10. For the purpose of this Schedule, an observer may wait to observe Visible Emissions from the Offtake System of a Coke Oven being charged until approximately five minutes after the completion of the charge.
- 11. For the purpose of this Schedule, an observer may count a door of a Coke Oven that has been charged in the 30-minute period preceding the observation as uncounted.
- 12. For the purpose of this Schedule, the following requirements do not apply with respect to the Coke Side of the by-product Coke Ovens:
 - i. The requirements with respect to the traverse set out in, Method 303, paragraph 11.2.2, if the requirements set out in 11.2.2.3 are met with respect to the traverse.
 - ii. The calculation set out in, Method 303, 12.5.2 if the calculation set out in 12.5.3 is used.

Observation of the Opacity of Fugitive Pushing Emissions Item 2.5

For greater certainty, the requirements set out in Item 2.5 pertain only to the opacity of fugitive Pushing emissions and not to the opacity of any other emissions.

1. Subject to Item 2.15 and paragraph 9, the Company shall ensure that the opacity of fugitive Pushing emissions for each By-product coke oven battery at the Facility is determined and recorded each day

in accordance with paragraphs (a) (1) to (6) of 40CFR63, subpart CCCCC, section 63.7334 (United States).

- 2. Subject to paragraph 3, reference to a day in paragraph 1 includes, at minimum, each of the following days:
 - i. Each Business Day in a calendar year.
 - ii. At least ten Saturdays in a calendar year.
 - iii. At least ten Sundays in a calendar year.
- 3. The Director may specify a different set of days than the days set out in paragraph 2 for a By-product coke oven battery if the District Manager is of the opinion that no failure to comply with Item 2.14 has occurred in the past 12 months with respect to the battery and the battery being specified is operating properly.
- 4. Figures 9.1 and 9.2 of Method 9 do not apply for the purpose of this Schedule. For the purpose of this Schedule the Company shall use current existing field data sheets and record sheets.
- 5. For the purpose of this Schedule, the requirement for a Method 9 certified observer to be employed by the administrator, as set out in 40 CFR 63.301, does not apply.
- 6. For the purpose of this Schedule, the alternative procedure mentioned in paragraph (a) (3) of 40CFR63, subpart CCCCC, section 63.7334 (United States) is not available.
- 7. For further certainty, the following determinations shall be made with respect to the Pushing opacity observations required to be made under paragraph (a)(4) of 40CFR63, subpart CCCCC, section 63.7334 (United States):
 - i. Determine the average opacity of the first six observations.
 - ii. Using the next opacity observation and the previous five observations, determine the average opacity.
 - iii. Repeat the determination described in subparagraph ii for all observations.
 - iv. Identify the highest average opacity determined in subparagraphs i to iii.
 - v. The average determined in subparagraph iv is deemed to be the average opacity of fugitive Pushing emissions for the push.
- 8. If two or more determinations required by paragraph 1 are not made in any seven-day period, the Company shall ensure that the Director and District Manager are notified in writing as soon as practicable.
- 9. The opacity of fugitive Pushing emissions associated with a Coke Oven push may be determined and recorded by a method other than the method set out in paragraph 1 if in the opinion of the Director the information submitted under paragraph 10 demonstrates that,
 - a. the method set out in paragraph 1 does not allow adequate observation of the opacity of the fugitive Pushing emissions because,
 - i. the Coke Oven push occurred at night, or
 - ii. an obstruction is preventing the observation of the Coke Oven push; and
 - b. the method is reasonably equivalent to paragraphs (a) (1) to (6) of 40CFR63, subpart CCCCC, section 63.7334 (United States).
- 10. The information mentioned in paragraph 9 includes the following:
 - i. An identification of each Coke Oven for which the other method may be used.

- ii. An identification of the By-product coke oven battery in which each of the Coke Ovens set out in subparagraph i is located.
- iii. An explanation of why it is not possible to use method set out in paragraph 1 for each of the Coke Ovens set out in subparagraph i.
- iv. A detailed explanation of the proposed other method.
- v. The number of days the other method may be used.

Operational Adjustments to Reduce Visible Emissions - Doors, Lids and Offtakes

Item 2.6

The Company shall ensure that, for each By-product coke oven battery at the Facility, a document entitled "Operational Adjustments – Visible Emissions" is prepared. The document shall set out actions to be taken if an exceedance described in Item 2.9 occurs and, for each action, shall include a written procedure to implement the action. One of the actions set out in the document shall be to cease operating a Coke Oven.

Item 2.7

The Company shall ensure that a graphic representation of the actions required to be set out by Item 2.6 is given to the District Manager.

Item 2.8

No later than March 31 of each year, the Company shall ensure that if, during the previous calendar year, any change is made to an action required to be set out by Item 2.6, the graphic required to be given by Item 2.7 is updated to reflect the change and the updated graphic and the reason for each update is given to the District Manager.

Item 2.9

- 1. The requirements of this Item are subject to Item 2.15.
- 2. If, as calculated in accordance with Item 2.4, the per cent leaking doors on a By-product coke oven battery at the Facility exceeds five (5) per cent, the Company shall ensure that one or more operational adjustments are made to minimize the discharge of Visible Emissions from leaking Coke Oven Doors.
- 3. If, as calculated in accordance with Item 2.4, the per cent leaking Topside Port Lids on a By-product coke oven battery at the Facility exceeds one (1) per cent, the Company shall ensure that one or more operational adjustments are made to minimize the discharge of Visible Emissions from leaking Topside Port Lids.
- 4. If, as calculated in accordance with Item 2.4, the per cent leaking Offtake Systems on a By-product coke oven battery at the Facility exceeds four (4) per cent, the Company shall ensure that one or more operational adjustments are made to minimize the discharge of Visible Emissions from leaking Offtake Systems.
- 5. If an operational adjustment is required to be made under paragraphs 2, 3, or 4 the Company shall ensure that a record describing the operational adjustment is prepared.
- 6. The record required by paragraph 5 shall contain the following information:
 - i. An indication of whether emissions from Coke Oven Doors, Topside Port Lids or Offtake Systems gave rise to the requirement to make an operational adjustment.
 - ii. The result of the calculation performed in accordance with Item 2.4.

- iii. Identification of the By-product coke oven battery from which the emissions mentioned in subparagraph i were emitted.
- iv. Identification of the Coke Ovens or port numbers from which the emissions mentioned in subparagraph i were emitted.
- v. The date on which the result mentioned in subparagraph ii was calculated.
- vi. The production rate of the By-product coke oven battery on the date mentioned in subparagraph v.
- vii. The name of the certified observer who determined the result mentioned in subparagraph ii.
- viii. The name of the persons operating and supervising the By-product coke oven battery mentioned in subparagraph iii on the date mentioned in subparagraph v.
- ix. A description of the operational adjustment made in accordance with paragraph 2, 3 or 4 as applicable.
- x. The date on which the operational adjustment mentioned in subparagraph ix commenced and the date on which the operational adjustment was completed.

Item 2.10

- 1. The Company shall ensure that the District Manager is notified in writing if two or more operational adjustments are required to be made under Item 2.9 in any seven-day period. The notice shall include the record required by paragraph 5 of Item 2.9 for each of the operational adjustments.
- 2. The seven-day period mentioned in paragraph 1 shall end on the date that is six days after the date on which the first operational adjustment is required to be made under Item 2.9.
- 3. The District Manager shall be notified as soon as practicable following the last day of the seven-day period mentioned in paragraph 2. The notice shall address all operational adjustments required to be made in the period.
- 4. An operational adjustment in respect of which a notice has been given by the Company under paragraph 1 shall not be included in determining whether two or more operational adjustments have been required within a subsequent seven-day period.

Operational Adjustments to Reduce Fugitive Pushing Emissions

Item 2.11

For greater certainty, the requirements set out in Item 2.11 of this Schedule pertain only to the opacity of fugitive Pushing emissions and not to the opacity of any other emissions.

The Company shall ensure that, for each By-product coke oven battery at the Facility, a document entitled "Operational Adjustments – Reducing Fugitive Emissions During Pushing" is prepared. The document shall set out actions that could be taken if an operational adjustment is required to be made under Item 2.14 and, for each action, shall include a written procedure to implement the action. One of the actions set out in the document shall be to increase the duration of the Coking Process for a Coke Oven.

Item 2.12

For greater certainty, the requirements set out in Item 2.12 of this Schedule pertains only to the opacity of fugitive Pushing emissions and not to the opacity of any other emissions.

The Company shall ensure that a graphic representation of the actions required to be set out by Item 2.11 is

given to the Director and District Manager.

Item 2.13

For greater certainty, the requirements set out in Item 2.13 of this Schedule pertain only to the opacity of fugitive Pushing emissions and not to the opacity of any other emissions.

No later than March 31 of each year, the Company shall ensure that if, during the previous calendar year, any change is made to an action required to be set out by Item 2.11, the graphic required to be given by Item 2.12 is updated to reflect the change and the updated graphic and the reason for each update is given to the District Manager.

Item 2.14

For greater certainty, the requirements set out in Item 2.14 of this Schedule pertain only to the opacity of fugitive Pushing emissions and not to the opacity of any other emissions.

- 1. Subject to Item 2.15, the Company shall ensure that one or more of the operational adjustment actions set out in the document mentioned in Item 2.11 are made to minimize the discharge of emissions to the air during Pushing if during any day the Fugitive Emissions associated with a Coke Oven push have an average opacity, determined in accordance with Item 2.5, of 30 per cent or more.
- 2. Subject to paragraph 3, no later than thirty days after the date on which a requirement to make an operational adjustment arose under paragraph 1, the Company shall, for a 30-day period, cease to operate each Coke Oven that gave rise to the requirement to make an operational adjustment under paragraph 1.
- 3. Paragraph 2 does not apply if,
 - a. during the thirty-day period mentioned in paragraph 2, the opacity of the fugitive Pushing emissions associated with each Coke Oven that was observed on the date on which the requirement to make an operational adjustment arose under paragraph 1 is observed again and no Fugitive Emissions associated with a Coke Oven push have an average opacity, determined in accordance with Item 2.5, of less than 30 per cent; or
 - b. Subject to paragraph 5, the Director and District Manager have been notified of and the Director has approved a plan to minimize the discharge of emissions to the air during the Pushing of each Coke Oven that gave rise to the requirement to make an operational adjustment under in paragraph 1.
- 4. If the information required by clause 3 a. is not ascertained before the date that is half way through the 30-day period mentioned in paragraph 2, the Company shall ensure that the District Manager is notified as soon as practicable after the date.
- 5. The Director shall not approve the plan mentioned in clause 3 b. for a period of more than 24 months.
- 6. If an operational adjustment is required to be made under paragraph 1, the Company shall ensure that a record describing the operational adjustment is prepared.
- 7. The record required by paragraph 6 shall contain the following information:
 - i. The opacity of the Fugitive Emissions that gave rise to the requirement to make the operational adjustment.
 - ii. Identification of each Coke Oven, the push of which gave rise to the requirement to make the operational adjustment.
 - iii. Identification of the By-product coke oven battery in which the Coke Ovens mentioned in subparagraph ii are located.

- iv. The date on which the opacity mentioned in subparagraph i was determined.
- v. The production rate of the By-product coke oven battery on the date mentioned in subparagraph iv.
- vi. The name of the certified observer qualified under Method 9 who determined the opacity mentioned in subparagraph i.
- vii. The name of the persons operating and supervising the By-product coke oven battery mentioned in subparagraph iii on the date mentioned in subparagraph iv.
- viii. A description of the operational adjustment made in accordance with paragraph 1.
- ix. The date on which the operational adjustment mentioned in subparagraph viii commenced and the date on which the operational adjustment was completed.

Start-up, Shut-down, Battery Repair and Batteries not in Operation Item 2.15

- 1. The Director may approve a plan setting out operating practices during a period of Start-up, Shut-down or Battery Repair if he or she is of the opinion that the operating practices will minimize the discharge of contaminants during the period.
- 2. Approval of the plan mentioned in paragraph 1 shall expire at the end of the period mentioned in paragraph 1.
- 3. During a period of approval mentioned in paragraph 2, the Company shall comply with the operating practices set out in the plan approved under paragraph 1 instead of Items 2.1, 2.2, 2.4, 2.5, 2.9 and 2.14.
- 4. Items 2.1, 2.2, 2.4, 2.5, 2.9 and 2.14 do not apply during a period in which a By-product coke oven battery is not operating.

Requirements for Record-Keeping Item 2.16

- 1. The Company shall ensure that the following information is recorded:
 - i. The daily production rate of each By-product coke oven battery at the Facility.
 - ii. The date, time and reason for each Shut-down of a Coke Oven and the date and time that the Coke Oven was re-started.
 - iii. The date, time and reason for each Battery Repair and the date and time that the Battery Repair was completed.
 - iv. The date, time and durations of each power outage that affected a By-product coke oven battery at the Facility.
 - v. For each By-product coke oven battery at the Facility,
 - a. The per cent leaking doors calculated in accordance with Item 2.4.
 - b. The per cent leaking Topside Port Lids calculated in accordance with Item 2.4.
 - c. The per cent leaking Offtake Systems calculated in accordance with Item 2.4.
 - d. The Visible Emissions from charging systems during Charging calculated in accordance with Item 2.4.

e. The opacity of fugitive Pushing emissions determined in accordance with Item 2.5.

Requirements for Public Reporting

- 1. The Company shall maintain and participate in the existing Community Liaison Committee (CLC) for the Facility, and ensure that,
 - a. the CLC meets, at a minimum, quarterly or at a frequency agreed to in writing by the CLC members and serves as a forum for dissemination, consultation, review and exchange of information regarding the operation of the Facility, environmental issues such as the need for new approvals or amendments to existing approvals to reduce emissions of suspended particulate matter;
 - b. a report is presented at each meeting that includes, for each By-product coke oven battery at the Facility, a summary of the following information:
 - i. the information required by Schedule 7 Item 2.3 with respect to each notice required to be given during the period since the last meeting of the CLC,
 - ii. the information required by Schedule 7 Item 2.9 paragraph 6 with respect to each record required to be made during the period since the last meeting of the CLC,
 - iii. the information required by Schedule 7 Item 2.14 paragraph 7 with respect to each record required to be made during the period since the last meeting of the CLC,
 - iv. Complaints received by the Facility during the period since the last meeting of the CLC that relates to a matter addressed in this Approval, and
 - v. Any comments provided to the Facility by the Ministry regarding the status of subparagraphs i to iv.
 - c. for each meeting, the materials, such as agendas and presentations, are posted to the Company website no later than five Business Days after the date that the CLC meeting is held.
- 2. By July 1 of each year, the Company shall prepare a report titled "Environmental Management System and Community Engagement Report" that sets out the following information with respect to the preceding calendar year:
 - i. A summary of the information required by Schedule 7 Item 2.3 with respect to each notice required to be given.
 - ii. A summary of the information required by Schedule 7 Item 2.9 paragraph 6 with respect to each record required to be made.
 - iii. A summary of the information required by Schedule 7 Item 2.14 paragraph 7 with respect to each record required to be made.
 - iv. The minutes of the CLC meetings and any related follow-up actions.
- 3. The report required by paragraph 2 shall be made available for public inspection at the Facility during office hours and be posted to the Company website.