FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

NORTHEAST DISTRICT
8800 BAYMEADOWS WAY WEST, SUITE 100
JACKSONVILLE, FLORIDA 32256

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

PERMITTEE

Air Permit No. 0310005-017-AC
Permit Expires: xx/xx/xxxx
Minor Air Construction Permit Revision
Jacksonville Facility
Nos. 3 and 4 Glass Melting Furnaces

Ardagh Glass, Inc.
Jacksonville Plant 07
2121 Huron St.
Jacksonville, Florida 32254

Authorized Representative:
Carl Czekanski, General Manager

PROJECT

This is the final air construction permit, which authorizes the installation of continuous emission monitors (CEMS) for the pollutants sulfur dioxide (SO_2) and oxides of nitrogen (NO_x) on the Nos. 3 and 4 Glass Melting Furnaces and installation of an electronic weighed conveyor system (EWCS) to weigh cullet prior to being charged to the Nos. 3 and 4 Glass Melting furnaces and also to weigh the cullet from the return systems from both of the furnaces. The proposed work will be conducted at the existing Jacksonville Facility, which is a container glass manufacturing plant categorized under Standard Industrial Classification No. 3221. The existing Jacksonville Facility is located in Duval County at 2121 Huron Street, Jacksonville, Duval County, FL 32254. The UTM coordinates of the existing facility are Zone 17, 431.500 km East and 3357.500 km North.

This final permit is organized by the following sections.

Section 1. General Information

Section 2. Administrative Requirements

Section 3. Emissions Unit Specific Conditions

Section 4. Appendices

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Jacksonville, Florida

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Richard S. Rachal III, P.G.
Program Administrator
Waste and Air Resource Management Program

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on DRAFT to the persons listed below.

John Koogler, Ph.D., P.E., Koogler & Associates, Inc.: (jkoogler@kooglerassociates.com)
Tom Krawiec, Ardagh Glass, Inc.: (tom.krawiec@ardaghgroup.com)
Carl Czekanski, Ardagh Glass, Inc.: (carl.czekanski@ardaghgroup.com)
Pradeep Raval, Koogler & Associates, Inc.: (praval@kooglerassociates.com)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

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_____ _____
(Clerk) (Date)

FACILITY DESCRIPTION

The existing facility consists of the following emissions units (EU). The EUs affected by this permitting action are highlighted.

Facility ID No. 0310005	
EU ID No.	**Emission Unit Description**
003	No. 3 Glass Melting Furnace
004	No. 4 Glass Melting Furnace

FACILITY REGULATORY CLASSIFICATION

(1) The facility is not a major source of hazardous air pollutants (HAP).

(2) The facility does not operate units subject to the acid rain provisions of the Clean Air Act (CAA).

(3) The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

(4) The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

(5) The proposed project **does not** trigger a PSD review and a requirement to conduct a Best Available Control Technology (BACT) pursuant to Department Rule 62-212.400, F.A.C.

PROPOSED PROJECT

This project involves 1): The installation of continuous emission monitors (CEMS) for the determination of the emissions of the pollutants sulfur dioxide (SO_2) and oxides of nitrogen (NO_x) emitted from the Nos. 3 and 4 Glass Melting furnaces at the Jacksonville facility. The requirement to install the CEMS is part of a supplemental environmental project (SEP) required by a Consent Order entered into by Ardagh Glass Inc. and the City of Jacksonville, Neighborhoods Department, Environmental Quality Division (EQD) and approved by the City of Jacksonville Environmental Protection Board (EPB). The Consent Order was signed, approved by the EPB, and became effective on December 9, 2013.

2): Installation of an electronic weighed conveyor system (EWCS) to weigh cullet prior to being charged to the Nos. 3 and 4 Glass Melting furnaces and also to weigh the cullet from the return systems from both of the furnaces. The requirement to install the EWCS is part of a supplemental environmental project (SEP) required by a Consent Order with Compliance Plan entered into by Ardagh Glass Inc. and the City of Jacksonville, Neighborhoods Department, Environmental Quality Division (EQD) and approved by the City of Jacksonville Environmental Protection Board (EPB). The Consent Order with Compliance Plan was signed, approved by the EPB, and became effective on December 9, 2013.

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1. Permitting Authority & Compliance Authority: The permitting authority for this project is the Florida Department of Environmental Protection (Department), Northeast District Office, Waste and Air Resource Management, 8800 Baymeadows Way West, Suite 100, Jacksonville, FL 32256. All documents related to applications for permits to operate an emissions unit shall be submitted to the Northeast District Office, Waste and Air Resource Management Program.

   The compliance authority for this project is the Florida Department of Environmental Protection (Department), Northeast District Office, Compliance Assurance, 8800 Baymeadows Way West, Suite 100, Jacksonville, FL 32256. All documents related to compliance for an emissions unit shall be submitted to the Northeast District Office, Compliance Assurance.

   The Permitting Authority and Compliance Authority phone number is 904-256-1700.

2. Appendices: The following Appendices are attached as part of this permit:

   (a) Appendix A. Citation Formats and Glossary of Common Terms;

   (b) Appendix B. General Conditions;

   (c) Appendix C. Common Conditions; and

   (d) Appendix D. Common Testing Requirements.

   (e) Appendix TP. Test Plan

   (f) 40 CFR 60, Subpart A

   (g) 40 CFR 60, Appendix B

   (h) 40 CFR 60, Appendix F

3. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

4. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

5. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

6. Source Obligation:

   (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

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(b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification. [Rule 62-212.400(12), F.A.C.]

7. Application for Title V Permit: This permit authorizes modification of the permitted emissions unit(s) and auxiliary systems as described in the Proposed Project above and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the facility. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority.

   [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

8. Existing Permits and Regulations: The conditions of this permit supplements all other previously issued air construction permits for this facility. These conditions are in addition to all other applicable permit conditions and regulatory requirements. The owner or operator shall continue to comply with the conditions of those permits, which include restrictions and standards regarding capacities, production, operation, fuels, emissions, monitoring, recordkeeping, reporting, operation of air pollution control devices, and the like. The owner or operator shall also comply with the applicable Rules of 62-4, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.

   [Rule 62-4.070, F.A.C.]

9. The CEMS and EWCS shall be installed in accordance with the requirements of the supplemental environmental project (SEP) required by a Consent Order with Compliance Plan entered into by Ardagh Glass Inc. and the City of Jacksonville, Neighborhoods Department, Environmental Quality Division (EQD) and approved by the City of Jacksonville Environmental Protection Board (EPB). The Consent Order with Compliance Plan was signed, approved by the EPB, and became effective on December 9, 2013.

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Emissions Unit No. 003-Glass Melting Furnace No. 3

Emission Unit Description: An end port regenerative glass melting furnace fired by natural gas or propane. The burner tip configuration may be configured as four burner tips (two per side) rated at 21 MMBtu per hour each or six burner tips (three per side) rated at 15 MMBtu per hour each. It is noted that firing alternates periodically from side to side of the furnace. It is noted that there is a potential heat capacity difference of three MMBtu per hour (45 MMBtu - 42 MMBtu) (approximately 7.1% difference) between the two configurations.

Additional heat may be obtained from an electric boost with a maximum heat input of 8.6 X 10^6 Btu per hour.

Essential Potential to Emit (PTE) Parameters

A.1. This emissions unit shall be allowed to operate continuously, i.e., 8760 hours per year.
[Rule 62-210.300(2)(a), FAC, and Rule 2.301, JEPB]

Emission Limitations and Standards

A.2. The maximum process weight rate shall be limited to 14.70 tons per hour and 128,772 tons per year of raw materials, cullet, and additives for glass production. The glass pull rate shall be limited to a maximum of 312.26 tons per day (TPD) and 113,976.1 tons per year (TPY).
[Rule 62-212.400(4)(g), FAC, and Rule 2.401, JEPB]

A.3. Fossil fuels which may be fired are natural gas or propane. The maximum heat input from the combustion of fossil fuels shall be limited to 51.86 X 10^6 Btu per hour and 454,293.6 X 10^6 Btu per year (445.39 X 10^6 cubic feet per year of natural gas at a nominal heat content of 1020 Btu per cubic foot). The maximum heat input from the electrical boost system shall be limited to 8.6 X 10^6 Btu per hour (2500 KVA) and 75,336 X 10^6 Btu per year.

[Rule 62-212.400(4)(g), FAC, and Rule 2.401, JEPB]

Particulate Matter (PM) and PM_{10}

A.4. Allowable PM emissions shall be determined by use of the equation E = 3.59 X P^ $^{0.62}$, where P is less than or equal to 10.09 tons per hour, E = emissions in pounds per hour and P = process weight rate in tons per hour. For process weight rates in excess of 10.09 tons per hour the maximum allowable PM emissions shall not exceed 15.05 pounds per hour. PM emissions shall not exceed 65.90 tons per year.

[Rule 62-296.320(4)(a), FAC, Rule 62-212.400(g)(4), FAC, Rule 2.1101, JEPB, and Rule 2.401, JEPB]

A.5. Maximum allowable PM_{10} emissions shall not exceed 14.29 pounds per hour and 62.61 tons per year. Compliance with the PM limit indicates compliance with the PM_{10} limit.

[Rule 62-296.320(4)(a), FAC, Rule 62-212.400(g)(4), FAC, Rule 2.1101, JEPB, and Rule 2.401, JEPB]

Visible Emissions

A.6. Visible emissions (VE) shall be limited to less than twenty (20) percent (%) opacity.

[Rule 62-296.320(4)(b), FAC, and Rule 2.1101, JEPB]

Sulfur Dioxide (SO_2)

A.7. SO_2 emissions shall not exceed 44.24 pounds per hour and 193.76 tons per year.
[Rule 62-212.400(g)(4), FAC, and Rule 2.401, JEPB]

Oxides of Nitrogen (NO_x)

A.8. NO_x emissions shall not exceed 106.26 pounds per hour and 465.43 tons per year.

[Rule 62-212.400(g)(4), FAC, and Rule 2.401, JEPB]

Test Methods and Procedures

A.9. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 5 (as described in 40 CFR 60, Appendix A) for the determination of the PM emissions rate.

[Rule 62-296.320(4)(a)3., FAC, and Rule 2.1101, JEPB]

A.10. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 9 (as described in 40 CFR 60, Appendix A) for the visual determination of opacity.

[Rule 62-296.320(4)(b), FAC, and Rule 2.1101, JEPB]

A.11. CEMS data shall be used for the determination of SO_2 emissions. Stack testing shall be performed in accordance with EPA RM 6 or 6C (as described in 40 CFR 60, Appendix A) for the determination of SO_2 emissions if minimum CEMS data requirements are insufficient.

[Rule 62-4.070(3), FAC and Rule 2.1401, JEPB]

A.12. CEMS data shall be used for the determination of NO_x emissions. Stack testing for shall be performed in accordance with EPA RM 7, 7A, or 7E (as described in 40 CFR 60, Appendix A) for the determination of NO_x emissions if minimum CEMS data requirements are insufficient.

[Rule 62-4.070(3), FAC and Rule 2.1401, JEPB]

A.13. PM testing and VE testing shall be conducted concurrently and each federal fiscal year. VE testing shall be conducted for a minimum period of 30 minutes. PM testing minimum sample volume shall be 25 dry standard cubic feet per run. Compliance testing for this emissions unit shall be conducted in accordance with the approved Test Plan on file with the Permitting Authority, Appendix TP. PM testing and VE testing shall be conducted as required by the Title V Air Operating Permit No. 0310005-013-AV.

[Rule 62-212.400(g)(4), FAC, Rule 62.297.310(7)(a)1., FAC, Rule 2.401, JEPB, and Rule 2.1201, JEPB]

A.14. SO_2 and NO_x compliance testing on the furnace shall be conducted 270 days prior to the expiration date of the Title V Air Operating Permit No. 0310005-013-AV. Compliance testing for this emissions unit shall be conducted in accordance with the approved Test Plan on file with the Permitting Authority, Appendix TP. CEMS data may be substituted for the required stack testing data provided the CEMS have been appropriately certified including but not limited to satisfactory completion of the Performance Specification Test and the initial RATA test. These tests shall be submitted to the Compliance Authority prior to the required stack testing date.

[Rule 62-212.400(g)(4), FAC, Rule 62-297.310(7)(a)1, FAC, Rule 2.401, JEPB, and Rule 2.1201, JEPB]

Record-keeping and Reporting Requirements

A.15. In order to provide reasonable assurance that applicable PSD significant levels are not exceeded with the modification and operation of glass melting furnace No. 3, restrictions have been placed on the following parameters:

a. Process weight rate (including the daily average percentage of cullet processed)
b. Glass pull rate
c. Fuel firing rate
d. Heat input from the electrical boost system
e. PM, PM_{10}, SO_2, and NOx emissions

These restrictions are in the Emission Limitations specific conditions listed above.

The permittee shall maintain records of items a., b., c., and d. above on a **daily** basis including the type of fuel used (natural gas or propane). During periods when stack testing is being conducted, the operating conditions during testing shall be recorded as set forth in the approved Test Plan on file with the Permitting Authority, Appendix TP. This information shall be recorded and summarized in a daily log. Owners or operators shall maintain these records for a minimum period of five (5) years.

[Rule 62-212.400(g)(4), FAC, Rule 62-4.070(3), FAC, Rule 2.401, JEPB, and Rule 2.1401, JEPB]

A.16. The permittee shall submit the records, required by **Specific Condition (SC) No. A.15.** above, to the Permitting Authority every six (6) months. The reports shall cover the period of January through June (report due on or before September 1) and July through December (report due on or before March 1). [Rule 62-212.400(g)(4), FAC, Rule 62-4.070(3), FAC, Rule 62-213.440(1)(b), FAC, Rule 2.501, JEPB, Rule 2.401, JEPB, and Rule 2.1401, JEPB]

{Permitting Note: Records may be submitted electronically with prior approval of the Permitting Authority.}

Continuous Monitoring Requirements

A.17. The requirement to install the SO_2 and NOx CEMS and the EWCS is part of a supplemental environmental project (SEP) required by a Consent Order with Compliance Plan entered into by Ardagh Glass Inc. and the City of Jacksonville, Neighborhoods Department, Environmental Quality Division (EQD) and approved by the City of Jacksonville Environmental Protection Board (EPB). The Consent Order with Compliance Plan was signed, approved by the EPB, and became effective on December 9, 2013.

The applicant has requested that the CEMS for SO_2 and NOx be used to determine compliance with applicable SO_2 and NOx emission limits. As stated in the SEP the CEMS will provide real-time feedback concerning SO_2 and NOx emissions ensuring that plant compliance with permit limits is continuously monitored.

The EWCS will ensure that all materials, not just the materials in the batch house (material weighing system already in place), will be weighed before being charged to the furnaces. The weights will be downloaded into the current batch material tracking software system. This will improve plant compliance with permit language that necessitates weighing materials to determine raw material process weight(s).

Although the furnaces are **not subject to New Source Performance Standards (NSPS) for the pollutants SO_2 and NOx** the General Requirements section of 40 Code of Federal Regulation (CFR), Part 60, Subpart A contains generally acceptable monitoring requirements for CEMS which would be appropriate to use as quality assurance, record-keeping, and reporting procedures for the SO_2 and NOx CEMS to be installed at the Ardagh Glass, Inc. facility. In order to provide assurance that the data generated by the CEMS is accurate and relevant the CEMS require Initial Performance Specification Testing, periodic Quarterly auditing procedures, and an annual Relative Accuracy Test Audit (RATA).

Therefore the continuous monitoring systems (CEMS for SO_2 and NOx) and continuous flow monitor installed pursuant to the referenced Consent Order with Compliance Plan shall be subject to the following quality assurance, record-keeping, and reporting procedures:

1. Performance specifications found in 40 CFR 60, Appendix B and Appendix F,
2. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device,
3. The CEMS zero and span shall be conducted in accordance with the procedures and frequencies found in 40 CFR 60.13(d),
4. The CEMS shall be in continuous operation and shall meet minimum frequency of operation requirements as specified in 40 CFR 60.13(e),
5. Representative measurements and applicable procedures as specified in 40 CFR 60.13(f) shall be followed,
6. Data shall be reduced in accordance with procedures (as applicable) in accordance with 40 CFR 60.13(h)
7. A notification of the date upon which demonstration of the continuous monitoring system(s) performance commences shall be submitted to the Compliance Authority a minimum of 15 days prior to such date,
8. Maintain records of the occurrence and duration of periods when the continuous monitoring system is inoperative,
9. Submit semi-annually excess emission reports and monitoring system performance reports as described in 40 CFR 60.7(c),
10. The excess emissions report form and the summary report form (Use Figure 1 form) shall be submitted as described in 40 CFR 60.7(d),
11. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices in accordance with the procedures in 40 CFR 60.7(f).
12. Furnace No. 3: Determine the SO_2 and NOx pounds per hour emission rate based on the arithmetic average of the hourly emissions data during each furnace operating day.
13. Furnace No. 3: Compliance with the short term SO_2 and NOx emission limits is based on the average emission rates for SO_2 and NOx for 30 successive furnace operating days. A separate performance test is completed at the end of each furnace operating day and a new 30-day average emission rate for SO_2 and NOx is calculated to show compliance with the pound per hour limit.
14. Furnace No. 3: Compliance with the long term (12 month rolling total) SO_2 and NOx emission limits is based on the average emission rates for SO_2 and NOx for 12 successive furnace operating months. A separate performance test is completed at the end of each furnace operating month and a new 12 month rolling total average emission rate for SO_2 and NOx is calculated to show compliance with the tons per year limit.

Subsection B. EU No. 004

Emissions Unit No. 004-Glass Melting Furnace No. 4

Emission Unit Description: An end port two pass regenerator furnace system fired by natural gas or propane. The burner tips are currently configured at six burner tips (three per side) (11 MMBtu per hour each) or they may be configured at four burner tips (two per side) rated at 21 MMBtu per hour each. Either burner configuration may be used depending upon operational needs of the facility.

Additional heat may be obtained from an electric boost with a maximum heat input of 7.0 X 10^6 Btu per hour.

Essential Potential to Emit (PTE) Parameters

B.1. This emissions unit shall be allowed to operate continuously, i.e., 8760 hours per year.
[Rule 62-210.200(PTE), FAC, and Rule 2.301, JEPB]

Emission Limitations and Standards

B.2. The maximum process weight rate shall be limited to 13.73 tons per hour and 120,274.8 tons per year of raw materials, cullet, and additives for glass production. The glass pull rate shall be limited to a maximum of 280 tons per day (TPD) and 102,200 tons per year (TPY).
[Permits 0310005-004-AC and 0310005-007-AC]

B.3. Fossil fuels which may be fired are natural gas or propane. The maximum heat input from the combustion of fossil fuels shall be limited to 54.60 X 10^6 Btu per hour and 478,296 X 10^6 Btu per year (468.92 X 10^6 cubic feet per year of natural gas at a nominal heat content of 1020 Btu per cubic foot). The maximum heat input from the electrical boost system shall be limited to 7.0 X 10^6 Btu per hour and 61,320 X 10^6 Btu per year.
[Rule 62-212.300(3)(c), FAC, and Rule 2.401, JEPB]

Particulate Matter (PM)

B.4. Allowable PM emissions shall be determined by use of the equation E = 3.59 X P^ $^{0.62}$, where P is less than or equal to 13.73 tons per hour, E = emissions in pounds per hour and P = process weight rate in tons per hour. The maximum allowable PM emissions at the maximum permitted process weight rate (13.73 tons per hour) shall not exceed 18.22 pounds per hour and 79.72 tons per year.
[Rule 62-296.320(4)(a)2., FAC, Rule 62-212.300(3)(c), FAC, Rule 2.1101, JEPB, and Rule 2.401, JEPB]

Visible Emissions

B.5. Visible emissions (VE) shall be limited to less than twenty (20) percent (%) opacity.
[Rule 62-296.320(4)(b), FAC, and Rule 2.1101, JEPB]

Test Methods and Procedures

B.6. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 5 (as described in 40 CFR 60, Appendix A) for the determination of the PM emissions rate.
[Rule 62-296.320(4)(a)3., FAC, Rule 62-212.300(1)(e), FAC, Rule 2.1101, JEPB and Rule 2.401,JEPB]

B.7. Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 9 (as described in 40 CFR 60, Appendix A) for the visual determination of opacity.
[Rule 62-296.320(4)(b)4., FAC, and Rule 2.1101, JEPB]

B.8. CEMS data shall be used for the determination of SO_2 emissions. Stack testing shall be performed in accordance with EPA RM 6 or 6C (as described in 40 CFR 60, Appendix A) for the determination of SO_2 emissions if minimum CEMS data requirements are insufficient.
[Rule 62-212.300(1)(e), FAC and Rule 2.401, JEPB]

B.9. CEMS data shall be used for the determination of NO_x emissions. Stack testing for shall be performed in accordance with EPA RM 7, 7A, or 7E (as described in 40 CFR 60, Appendix A) for the NO_x emissions if minimum CEMS data requirements are insufficient.
[Rule 62-212.300(1)(e), FAC and Rule 2.401, JEPB]

B.10. PM and VE compliance testing shall be conducted concurrently and shall be conducted each federal fiscal year. PM testing minimum sample volume shall be 25 dry standard cubic feet per run. VE testing shall be conducted for a minimum period of 30 minutes. Compliance testing for this emissions unit shall be conducted in accordance with the approved Test Plan on file with the Permitting Authority, Appendix TP.
[Rule 62-297.310(4)(a)(2), FAC, Rule 62-212.300(1)(e)1., FAC, Rule 2.1201, JEPB and Rule 2.401, JEPB]

B.11. SO_2 and NO_x compliance testing on the furnace shall be conducted each calendar year for 5 years from CY 2012 until CY 2016. Compliance testing for this emissions unit shall be conducted in accordance with the approved Test Plan on file with the Permitting Authority, Appendix TP. CEMS data may be substituted for the required stack testing data for Calendar Year 2014 provided the CEMS have been appropriately certified including but not limited to satisfactory completion of the Performance Specification Test and the initial RATA test. These tests (Performance Specification Test and the initial RATA test) shall be submitted to the Compliance Authority prior to October 1, 2014. CEMS data shall be substituted for the required stack testing data for Calendar Year 2015 and 2016. ***{Permitting Note: The test conducted in March 2012 for demonstration of compliance for the air construction permit counts as the first test.}***
[Rule 62-212.300(1)(e)1., FAC and Rule 2.401, JEPB]

<u>Record-keeping and Reporting Requirements</u>

B.12. The restrictions placed on the following parameters have been retained from previous permits (Permit Nos. 0310005-004-AC and 0310005-006-AV) in order to provide reasonable assurance that applicable PSD significant emission rates are not exceeded with the modification and operation of Glass Melting Furnace No. 4:

a. Process weight rate (including the daily average percentage of cullet processed)
b. Glass pull rate
c. Heat input rate from natural gas and propane
d. Heat input from the electrical boost system

These restrictions are in the Emission Limitations and Standards specific conditions listed above.

[Rule 62-212.300(1)(e), FAC, Rule 62-213.440(1)(b), FAC, Rule 2.401, JEPB and Rule 2.501, JEPB]

B.13. The permittee shall maintain records of items a., b., c., and d. in Specific Condition No. B.12(a) above on a daily basis including the type of fuel used (natural gas or propane). During periods when stack testing is being conducted, the operating conditions during testing shall be recorded as set forth in the approved Test Plan on file with the Permitting Authority, Appendix TP. This information shall be recorded and summarized in a daily log. The permittee shall maintain these records for a minimum period of five (5) years.

[Rule 62-212.300(1)(e), FAC, Rule 62-213.440(1)(b), FAC Rule 62-4.070(3), FAC, Rule 2.401, JEPB, Rule 2.501, JEPB and Rule 2.1401, JEPB]

{Permitting Note: Records may be submitted electronically with prior approval of the Permitting Authority.}

Continuous Monitoring Requirements

B.14. The requirement to install the SO_2 and NO_x CEMS and the EWCS is part of a supplemental environmental project (SEP) required by a Consent Order with Compliance Plan entered into by Ardagh Glass Inc. and the City of Jacksonville, Neighborhoods Department, Environmental Quality Division (EQD) and approved by the City of Jacksonville Environmental Protection Board (EPB). The Consent Order with Compliance Plan was signed, approved by the EPB, and became effective on December 9, 2013.

The applicant has requested that the CEMS for SO_2 and NOx be used to determine compliance with applicable SO2 and NOx emission limits and determination of SO_2 and NOx emissions. As stated in the SEP the CEMS will provide real-time feedback concerning SO_2 and NOx emissions ensuring that plant compliance with permit limits is continuously monitored.

The EWCS will ensure that all materials, not just the materials in the batch house (material weighing system already in place), will be weighed before being charged to the furnaces. The weights will be downloaded into the current batch material tracking software system. This will improve plant compliance with permit language that necessitates weighing materials to determine raw material process weight(s).

Although the furnaces are **not subject to New Source Performance Standards (NSPS) for the pollutants SO2 and NOx** the General Requirements section of 40 Code of Federal Regulation (CFR), Part 60, Subpart A contains generally acceptable monitoring requirements for CEMS which would be appropriate to use as quality assurance, record-keeping, and reporting procedures for the SO_2 and NOx CEMS to be installed at the Ardagh Glass, Inc. facility. In order to provide assurance that the data generated by the CEMS is accurate and relevant the CEMS require Initial Performance Specification Testing, periodic Quarterly auditing procedures, and an annual Relative Accuracy Test Audit (RATA).

Therefore the continuous monitoring systems (CEMS for SO_2 and NOx) and continuous flow monitor installed pursuant to the referenced Consent Order with Compliance Plan shall be subject to the following quality assurance, record-keeping, and reporting procedures:

1. Performance specifications found in 40 CFR 60, Appendix B and Appendix F,
2. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device,
3. The CEMS zero and span shall be conducted in accordance with the procedures and frequencies in 40 CFR 60.13(d),
4. The CEMS shall be in continuous operation and shall meet minimum frequency of operation requirements as specified in 40 CFR 60.13(e),
5. Representative measurements and applicable procedures as specified in 40 CFR 60.13(f) shall be followed,

6. Data shall be reduced in accordance with procedures (as applicable) in accordance with 40 CFR 60.13(h)
7. A notification of the date upon which demonstration of the continuous monitoring system(s) performance commences shall be submitted to the Compliance Authority a minimum of 15 days prior to such date,
8. Maintain records of the occurrence and duration of periods when the continuous monitoring system is inoperative,
9. Submit semi-annually excess emission reports and monitoring system performance reports as described in 40 CFR 60.7(c),
10. The excess emissions report form and the summary report form (Use Figure 1 form) shall be submitted as described in 40 CFR 60.7(d),
11. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices in accordance with the procedures in 40 CFR 60.7(f).
12. Furnace No. 4: Determine the SO_2 and NOx pounds per hour emission rate based on the arithmetic average of the hourly emissions data during each furnace operating day.
13. Furnace No. 4: Determination of the short term SO_2 and NOx emissions is based on the average emission rates for SO_2 and NOx for 30 successive furnace operating days. A separate determination is completed at the end of each furnace operating day and a new 30-day average emission rate for SO_2 and NOx is calculated.
14. Furnace No. 4: Determination of the long term (12 month rolling total) SO_2 and NOx emissions is based on the average emission rates for SO_2 and NOx for 12 successive furnace operating months. A determination is completed at the end of each furnace operating month and a new 12 month rolling total average emission rate for SO_2 and NOx is calculated.