



1/6/2014

Mr. Michael Kirchner
 Libbey Glass Inc.
 1201 Buckeye Street
 Toledo, OH 43611

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
 Facility ID: 0448010066
 Permit Number: P0115681
 Permit Type: Administrative Modification
 County: Lucas

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
 77 South High Street, 17th Floor
 Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Toledo Department of Environmental Services at (419)936-3015 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA
TDES; Michigan; Indiana; Canada



Response to Comments

Facility ID:	0448010066
Facility Name:	Libbey Glass Inc.
Facility Description:	manufacturer of pressed and blown glass
Facility Address:	1201 Buckeye Street Toledo, OH 43611 Lucas County
Permit:	P0115681, Permit-To-Install - Administrative Modification
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Toledo Blade on 11/27/2013. The comment period ended on 12/27/2013.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: None

- a. Comment: None
- b. Response: None



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
Libbey Glass Inc.**

Facility ID:	0448010066
Permit Number:	P0115681
Permit Type:	Administrative Modification
Issued:	1/6/2014
Effective:	1/6/2014



Division of Air Pollution Control
Permit-to-Install
for
Libbey Glass Inc.

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Final Permit-to-Install
Libbey Glass Inc.
Permit Number: P0115681
Facility ID: 0448010066
Effective Date: 1/6/2014

Authorization

Facility ID: 0448010066
Facility Description: Manufacturer of pressed and blown glass
Application Number(s): M0002447
Permit Number: P0115681
Permit Description: Administrative modification to allow the use of #2 fuel oil in the glass forming furnace on an emergency basis
Permit Type: Administrative Modification
Permit Fee: \$625.00
Issue Date: 1/6/2014
Effective Date: 1/6/2014

This document constitutes issuance to:

Libbey Glass Inc.
1201 Buckeye Street
Toledo, OH 43611

of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

A handwritten signature in black ink, appearing to read "Scott J. Nally".

Scott J. Nally
Director



Final Permit-to-Install
Libbey Glass Inc.
Permit Number: P0115681
Facility ID: 0448010066
Effective Date: 1/6/2014

Authorization (continued)

Permit Number: P0115681
Permit Description: Administrative modification to allow the use of #2 fuel oil in the glass forming furnace on an emergency basis

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	P007
Company Equipment ID:	G - Furnace
Superseded Permit Number:	04-01414
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
Libbey Glass Inc.
Permit Number: P0115681
Facility ID: 0448010066
Effective Date: 1/6/2014

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.
- b) It shall not be a defense for the permittee in an enforcement action that it would have been



necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Toledo Department of Environmental Services.
 - (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions,



and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Toledo Department of Environmental Services. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

- (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Toledo Department of Environmental Services every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Toledo Department of Environmental Services in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule



3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Toledo Department of Environmental Services concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.



8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Toledo Department of Environmental Services.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Toledo Department of Environmental Services. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the



Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.



13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



Final Permit-to-Install
Libbey Glass Inc.
Permit Number: P0115681
Facility ID: 0448010066
Effective Date: 1/6/2014

B. Facility-Wide Terms and Conditions



Final Permit-to-Install
Libbey Glass Inc.
Permit Number: P0115681
Facility ID: 0448010066
Effective Date: 1/6/2014

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.



Final Permit-to-Install
Libbey Glass Inc.
Permit Number: P0115681
Facility ID: 0448010066
Effective Date: 1/6/2014

C. Emissions Unit Terms and Conditions



1. P007, G - Furnace

Operations, Property and/or Equipment Description:

G-furnace (27-G) Melter, regenerators, stack, refiner and forehearths

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	170 tons/day glass melting furnace, natural gas fired at a maximum rate of 33,583 scf/hr, with electric boost and no control	
a.	OAC rule 3745-31-05(A)(3)	0.20 pound of carbon monoxide (CO) per hour; 46.3 pounds of nitrogen oxides (NOx) per hour; 5.81 pounds of particulate emissions (PE) per hour; 6.30 pounds of particulate matter less than 10 microns in diameter (PM10) per hour; 20.8 pounds of sulfur dioxide emissions (SO2) per hour; 0.35 pound of volatile organic compound emissions (VOC) per hour; and see b)(2)a.
b.	OAC rule 3745-31-05(D)	0.88 ton per rolling, 12-month period of CO; 182.5 tons per rolling, 12-month period of NOx; 22.9 tons per rolling, 12-month period of PE 24.8 tons per rolling, 12-month period of PM10; 82.0 tons per rolling, 12-month period of SO2; and 1.53 tons per rolling, 12-month period of VOC.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-07(A)(1)	see b)(2)b.
d.	OAC rule 3745-17-11(A)(2)	see b)(2)c.
e.	OAC rule 3745-18-06(E)(2)	see b)(2)c.
Refiner - natural gas fired at a maximum rate of 3,375 scf/hr with low-NOx burners		
f.	OAC rule 3745-31-05(A)(3)	0.29 pound per hour and 1.27 tons per rolling 12-month period of CO emissions; 0.17 pound per hour and 0.75 ton per rolling 12-month period of NOx emissions; 0.01 pound per hour and 0.03 ton per rolling 12-month period of PE; 0.03 pound per hour and 0.12 ton per rolling 12-month period of PM10 emissions; 0.01 pound per hour and 0.01 ton per rolling 12-month period of SO2; 0.02 pound per hour and 0.08 ton per rolling 12-month period of VOC emissions; and see d)(2)d. and e.
g.	OAC rule 3745-17-07(B)(1)	See b)(2)c.
h.	OAC rule 3745-17-08(B)	See b)(2)f.
i.	OAC rule 3745-18-06(E)(2)	See b)(2)c.
Forehearths - natural gas fired with standard burners (17,666 scf/hr) and low-NOx burners (5,148 scf/hr)		
j.	OAC rule 3745-31-05(A)(3)	1.92 pounds per hour and 8.41 tons per rolling 12-month period of CO emissions; 1.41 pounds per hour and 6.18 tons per rolling 12-month period of NOx emissions; 0.04 pound per hour and 0.20 ton per rolling 12-month period of PE; 0.18 pound per hour and 0.79 ton per rolling 12-month period of PM10 emissions; 0.02 pound per hour and 0.09 ton per rolling 12-month period of SO2 emissions; 0.13 pound per hour and 0.57 ton per rolling 12-month period of VOC emissions; and



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		see b)(2)d. and e.
k.	OAC rule 3745-17-07(B)(1)	See b)(2)c.
l.	OAC rule 3745-17-08(B)	See b)(2)f.
m.	OAC rule 3745-18-06(E)(2)	See b)(2)c.

(2) Additional Terms and Conditions

- a. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1).
- b. Visible particulate emissions from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, unless otherwise specified by the rule.
- c. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- d. The permittee shall allow no visible emissions of fugitive dust from any enclosure (building) surrounding this emissions unit. Visible emissions of fugitive dust through roof-mounted ventilator(s) shall not exceed 5% opacity as a 3-minute average.
- e. The hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit for this emissions source at the maximum firing rate for natural gas. Therefore, it is not necessary to develop monitoring, recordkeeping and/or reporting requirements to ensure compliance with these limitations.
- f. Compliance with this rule is achieved through the exclusive combustion of natural gas.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas and/or number two fuel oil as fuel in the glass melting furnace of this emissions unit.
- (2) The permittee shall burn only natural gas as fuel in the refiner and forehearth of this emissions unit.
- (3) The rate of glass pull from this emissions unit shall not exceed 55,800 tons per rolling, 12-month period, based upon a rolling, 12-month summation of the monthly pull rates.

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas and/or number two fuel oil in the glass melting furnace, the permittee shall maintain a record of the type, quantity, and heating value in Btu/dscf of the fuel burned.



This emissions unit can be fired with natural gas and #2 fuel oil. However, to avoid additional monitoring, recordkeeping, and reporting requirements for #2 fuel oil usage, #2 fuel oil shall be employed as a standby fuel and shall be employed only on an emergency basis. SO₂ emissions from fuel combustion are considered to be a small fraction of the SO₂ emissions. Most SO₂ emissions are generated from impurities in the feed stock material. Because the potential to emit for SO₂, based upon the AP-42 emission factor, is well below the allowable emission rate, there is no need for monitoring, record keeping, and reporting requirements to ensure ongoing compliance with the allowable emission rate.

- (2) For each day during which the permittee burns a fuel other than natural gas in the refiner or forehearths, the permittee shall maintain a record of the type, quantity, and heating value in Btu/dscf of the fuel burned.
- (3) The permittee shall maintain daily records of:
 - a. the glass pull rate, in tons/day; and
 - b. the hours of operation of this emissions unit.
- (4) The permittee shall maintain monthly records of the following information:
 - a. the glass pull rate for each month; and
 - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the glass pull rates.
- (5) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the G-furnace stack. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal



operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

- (6) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the roof ventilator serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
- (7) The permittee shall perform daily checks, when the emissions unit is in operation, for any visible fugitive particulate emissions from building egress points (doors, windows). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. the total duration of any visible emission incident; and
 - c. any corrective actions taken to eliminate the visible emissions.
- (8) For emission points for which the daily checks show emissions that are representative of normal operation for 30 consecutive operating days, the required frequency of visible emissions checks may be reduced to weekly (once per week, when the emissions unit is in operation). If a subsequent check of such emission point by the permittee or an Ohio EPA inspector indicates abnormal emissions, the frequency of emissions checks shall revert to daily for that emission point until such time as there are 30 consecutive operating days of normal visible emissions.

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number two fuel oil was burned in the glass melting furnace of this emissions unit. Each report shall be submitted to the Toledo Division of Environmental Services within 30 days after the deviation occurs.
- (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in the refiner or forehearth of this emissions unit.



Each report shall be submitted to the Toledo Division of Environmental Services within 30 days after the deviation occurs.

- (3) On an annual basis, the permittee shall report the total number of days during which #2 fuel oil was fired in this emissions unit. These reports shall be submitted to the Director (the Toledo Division of Environmental Services) by January 31 of each year and shall cover the previous 12-month period.
- (4) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month glass pull rate limitation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.
- (5) The permittee shall submit quarterly written reports which:
 - a. identify all days during which any visible particulate emissions were observed from the G-furnace stack, the roof ventilator serving this emissions unit or building egress points;
 - b. describe any corrective actions taken to minimize or eliminate the visible particulate emissions from the melting furnace stack;
 - c. describe any corrective actions taken to eliminate the visible particulate emissions from the roof ventilator serving this emissions unit; and
 - d. describe any corrective actions taken to eliminate the visible fugitive particulate emissions from building egress points (doors, windows).

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

f) **Testing Requirements**

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. **Emission Limitation:**

20% opacity as a 6-minute average from the melting furnace stack

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60,



Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

0.20 pound per hour CO emissions from the melting furnace

Applicable Compliance Method:

Compliance shall be determined through calculations based on the emission factor demonstrated during the most recent stack test, as follows: multiply the stack test emission factor (0.028 pound of CO emissions per ton of glass pulled, performed August 17, 2006) by the maximum hourly throughput rate (170 tons per day divided by 24 hours per day).

If required, the permittee shall perform emission testing in accordance with the methods and procedures of Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

c. Emission Limitation:

0.88 ton per rolling, 12-month period of CO from the melting furnace

Applicable Compliance Method:

Annual emissions are based on the allowable hourly emission rate (0.20 lb/hr) multiplied by the maximum annual hours of operation (8,760 hrs/yr) and divided by 2000 lbs/ton. Therefore if compliance is shown with the hourly emission limitation, compliance is also shown with the annual emission limitation.

d. Emission Limitation:

46.3 pounds per hour NO_x emissions from the melting furnace

Applicable Compliance Method:

Compliance shall be determined through calculations based on the emission factor demonstrated during the most recent stack test, as follows: multiply the stack test emission factor (4.08 pounds of NO_x emissions per ton of glass pulled as performed May 8, 2013) by the maximum hourly throughput rate (170 tons per day divided by 24 hours per day).

If required, the permittee shall perform emission testing in accordance with the methods and procedures of Methods 1 through 4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.



e. Emission Limitation:

182.5 tons per rolling, 12-month period of NO_x from the melting furnace

Applicable Compliance Method:

Compliance shall be determined through calculations based on the emission factor demonstrated during the most recent stack test, as follows: multiply the stack test emission factor (4.08 pounds of NO_x emissions per ton of glass pulled as performed May 8, 2013) by the maximum annual throughput rate (55,800 tons per year) and divide by 2,000 pounds per ton.

f. Emission Limitation:

6.30 pounds per hour PM₁₀ emissions from the melting furnace

Applicable Compliance Method:

Compliance shall be determined through calculations based on the emission factor demonstrated during the most recent stack test, as follows: multiply the stack test emission factor (0.64 pound of PM₁₀ emissions per ton of glass pulled, performed August 17, 2006) by the maximum hourly throughput rate (170 tons per day divided by 24 hours per day).

If required, compliance shall be demonstrated based upon the procedures specified in Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

g. Emission Limitation:

24.8 tons per rolling, 12-month period of PM₁₀ from the melting furnace

Applicable Compliance Method:

Compliance shall be determined through calculations based on the emission factor demonstrated during the most recent stack test, as follows: multiply the stack test emission factor (0.64 pound of PM₁₀ emissions per ton of glass pulled, performed August 17, 2006) by the maximum annual throughput rate (55,800 tons per year) and divide by 2,000 pounds per ton.

h. Emission Limitation:

5.81 pounds per hour PE emissions from the melting furnace

Applicable Compliance Method:

Compliance shall be determined through calculations based on the emission factor demonstrated during the most recent stack test, as follows: multiply the stack test emission factor (0.57 pound of PE emissions per ton of glass pulled,



performed August 17, 2006) by the maximum hourly throughput rate (170 tons per day divided by 24 hours per day).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

i. Emission Limitation:

22.9 tons per rolling, 12-month period of PE from the melting furnace

Applicable Compliance Method:

Compliance shall be determined through calculations based on the emission factor demonstrated during the most recent stack test, as follows: multiply the stack test emission factor (0.57 pound of PE emissions per ton of glass pulled, performed August 17, 2006) by the maximum annual throughput rate (55,800 tons per year) and divide by 2,000 pounds per ton.

j. Emission Limitation:

20.8 pounds per hour SO₂ emissions from the melting furnace

Applicable Compliance Method:

Compliance shall be determined through calculations based on the emission factor demonstrated during the most recent stack test, as follows: multiply the stack test emission factor (2.5 pounds of SO₂ emissions per ton of glass pulled, performed May 8, 2013) by the maximum hourly throughput rate (170 tons per day divided by 24 hours per day).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 6C of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

k. Emission Limitation:

82.0 tons per rolling, 12-month period of SO₂ from the melting furnace

Applicable Compliance Method:

Compliance shall be determined through calculations based on the emission factor demonstrated during the most recent stack test, as follows: multiply the stack test emission factor (2.5 pounds of SO₂ emissions per ton of glass pulled, performed May 8, 2013) by the maximum annual throughput rate (55,800 tons per year) and divide by 2,000 pounds per ton.



I. Emission Limitation:

0.35 pound per hour VOC emissions from the melting furnace

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 25, or 25A of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Use of Method 25 or 25A is to be selected based on the results of pre-survey stack sampling and U.S. EPA guidance documents. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

m. Emission Limitation:

1.53 tons per rolling, 12-month period of VOC from the melting furnace

Applicable Compliance Method:

This emission limitation was developed by multiplying the VOC hourly emission limitation (0.35 pound per hour) by the maximum annual operating rate (8760 hrs/yr) and divided by 2000 pounds per ton. Therefore, if compliance is shown by with the hourly emission limitation, compliance is also shown with the annual emission limitation.

n. Emission Limitation:

Fugitive emissions through roof ventilator(s) shall not exceed 5% opacity as a 3-minute average

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(3).

o. Emission Limitation:

0.29 pound per hour CO emissions from the refiner

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the CO emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (84 lbs/mmscf of natural gas burned) by the maximum natural gas firing rate of 3.375 E-3mmscf/hr



p. Emission Limitation:

1.27 tons per rolling, 12-month period of CO from the refiner

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly CO emission limitation (0.29 lb/hr) by the maximum annual operating hours (8760 hrs/hr) and dividing by 2000 pounds per ton. Therefore, if compliance is shown with the hourly emission limitation, compliance is also shown with the annual emission limitation.

q. Emission Limitation:

0.17 pound per hour NOx emissions from the refiner

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the NOx emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (50 lbs/mmmscf of natural gas burned) by the maximum natural gas firing rate of 3.375 E-3mmmscf/hr

r. Emission Limitation:

0.75 ton per rolling, 12-month period of NOx from the refiner

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly NOx emission limitation (0.17 lb/hr) by the maximum annual operating hours (8760 hrs/yr) and dividing by 2000 pounds per ton. Therefore, if compliance is shown by the hourly emission limitation, compliance is also shown with annual emission limitation.

s. Emission Limitation:

0.03 pound per hour PM10 emissions from the refiner

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the NOx emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (7.6 lbs/mmmscf of natural gas burned) by the maximum natural gas firing rate (3.375 E-3mmmscf/hr).

t. Emission Limitation:



0.12 ton per rolling, 12-month period of PM10 from the refiner

Applicable Compliance Method:

This emission limitation was developed by multiplying the PM10 emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (7.6 lbs/mm³scf of natural gas burned), by the maximum natural gas firing rate (3.375 E-3mm³scf/hr), by the maximum annual operating hours (8760 hrs/yr) and dividing by 2000 pounds per ton.

u. Emission Limitation:

0.01 pound per hour PE emissions from the refiner

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the PE emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (1.9 lbs/mm³scf of natural gas burned) by the maximum natural gas firing rate (3,375 scf/hr).

v. Emission Limitation:

0.03 ton per rolling, 12-month period of PE from the refiner

Applicable Compliance Method:

This emission limitation was developed by multiplying the PE emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (1.9 lbs/mm³scf of natural gas burned), by the maximum natural gas firing rate (3.375 E-3mm³scf/hr), by the maximum annual operating hours (8760 hrs/yr) and dividing by 2000 pounds per ton. Therefore, if compliance is shown by the hourly emission limitation, compliance is also shown with annual emission limitation.

w. Emission Limitation:

0.01 pound per hour SO₂ emissions from the refiner

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the SO₂ emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (0.6 lb/mm³scf of natural gas burned) by the maximum natural gas firing rate (3,375 scf/hr).

x. Emission Limitation:



0.01 ton per rolling, 12-month period of SO₂ from the refiner

Applicable Compliance Method:

This emission limitation was developed by multiplying the SO₂ emission factor from AP-42, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (0.6 lb/mmscf of natural gas burned), by the maximum natural gas firing rate (3.375 E-3mmscf/hr), by the maximum annual operating hours (8760 hrs/yr) and dividing by 2000 pounds per ton.

y. Emission Limitation:

0.02 pound per hour VOC emissions from the refiner

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the VOC emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (5.5 lbs/mmscf of natural gas burned) by the maximum natural gas firing rate (3,375 scf/hr).

z. Emission Limitation:

0.08 ton per rolling, 12-month period of VOC from the refiner

Applicable Compliance Method:

This emission limitation was developed by multiplying the VOC emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (5.5 lbs/mmscf of natural gas burned), by the maximum natural gas firing rate (3.375 E-3mmscf/hr), by the maximum annual operating hours (8760 hrs/yr) and dividing by 2000 pounds per ton.

aa. Emission Limitation:

1.92 pounds per hour CO emissions from the forehearths

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the CO emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (84 lbs/mmscf of natural gas burned) by the maximum natural gas firing rate (0.022814 mmscf/hr).

bb. Emission Limitation:



8.41 tons per rolling, 12-month period of CO from the forehearths

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly CO emission limitation (1.92 lb/hr) by the maximum annual operating hours (8760 hrs/hr) and dividing by 2000 pounds per ton. Therefore, if compliance is shown with the hourly emission limitation, compliance is also shown with the annual emission limitation.

cc. Emission Limitation:

1.41 pounds per hour NOx emissions from the forehearths

Applicable Compliance Method:

This emissions unit includes firing natural gas with standard burners (maximum firing rate of 17,666 scf/hr) and low NOx burners (maximum firing rate of 5,148 scf/hr). Compliance shall be demonstrated by multiplying the low NOx emission factor from AP-42 emission factor, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (50 lbs/mmscf of natural gas burned) by the maximum natural gas low NOx burner firing rate (0.017666 mmscf/hr) and adding that total to the product of the maximum standard burner firing rate (0.005148 mmscf/hr) multiplied by the AP-42 emission factor for a standard natural gas fired burner (100 lbs/mmscf of natural gas burned).

dd. Emission Limitation:

6.18 tons per rolling, 12-month period of NOx from the forehearths

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly NOx emission limitation (1.41 lb/hr) by the maximum annual operating hours (8760 hrs/yr) and dividing by 2000 pounds per ton. Therefore, if compliance is shown by the short term emission limitation, compliance is also shown with annual emission limitation.

ee. Emission Limitation:

0.18 pound per hour PM10 emissions from the forehearths

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the PM10 emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (7.6 lbs/mmscf of natural gas burned) by the maximum natural gas firing rate (0.022814 mmscf/hr).

ff. Emission Limitation:



0.79 ton per rolling, 12-month period of PM10 from the forehearths

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly PM10 emission limitation (0.18 lb/hr) by the maximum annual operating hours (8760 hrs/yr) and dividing by 2000 pounds per ton. Therefore, if compliance is shown by the short term emission limitation, compliance is also shown with annual emission limitation.

gg. Emission Limitation:

0.04 pound per hour PE emissions from the forehearths

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the PE emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (1.9 lbs/mmscf of natural gas burned) by the maximum natural gas firing rate (0.022814 mmscf/hr).

hh. Emission Limitation:

0.20 ton per rolling, 12-month period of PE from the forehearths

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly PE emission limitation (0.04 lb/hr) by the maximum annual operating hours (8760 hrs/yr) and dividing by 2000 pounds per ton. Therefore, if compliance is shown by the short term emission limitation, compliance is also shown with annual emission limitation.

ii. Emission Limitation:

0.02 pound per hour SO2 emissions from the forehearths

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the SO2 emission factor from AP-42 emission factor, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (0.6 lb/mmscf of natural gas burned) by the maximum natural gas firing rate (0.022814 mmscf/hr).

jj. Emission Limitation:



0.09 ton per rolling, 12-month period of SO₂ from the forehearths

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly SO₂ emission limitation (0.002 lb/hr) by the maximum annual operating hours (8760 hrs/yr) and dividing by 2000 pounds per ton. Therefore, if compliance is shown by the short term emission limitation, compliance is also shown with annual emission limitation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

kk. Emission Limitation:

0.13 pound per hour VOC emissions from the forehearths

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the VOC emission factor from AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 1.4, Table 1.4-1, dated 7/98 (5.5 lbs/mmscf of natural gas burned) by the maximum natural gas firing rate (0.022814 mmscf/hr).

ll. Emission Limitation:

0.57 ton per rolling, 12-month period of VOC from the forehearths

Applicable Compliance Method:

This emission limitation was developed by multiplying the hourly VOC emission limitation (0.13 lb/hr) by the maximum annual operating hours (8760 hrs/yr). Therefore, if compliance is shown by the short term emission limitation, compliance is also shown with annual emission limitation.

mm. Emission Limitation:

No visible emissions from any enclosure (building) surrounding this emissions unit

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with Method 22 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(4).

- (2) The permittee shall maintain records for this emissions unit of the total annual hours of operation on the standby fuel. If the annual usage of fuel oil in this emissions unit



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exceeds 500 hours, the permittee shall immediately report the exceedance, and Ohio EPA may require the permittee to conduct emission testing at the glass melting furnace while combusting fuel oil.

g) Miscellaneous Requirements

- (1) None.