



State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:

P.O. Box 1049
Columbus, OH 43216-1049

9/29/2008

Stacey Coburn *Via E-Mail Notification*
United States Environmental Protection Agency
Region V - AR-18J
77 West Jackson Blvd.
Chicago, IL 60604-3590

RE: PROPOSED AIR POLLUTION TITLE V PERMIT
Facility Name: Libbey Glass Inc.
Facility ID: 0448010066
Permit Type: Renewal
Permit Number: P0088082

Dear Ms. Coburn:

A proposed OAC Chapter 3745-77 Title V permit for the referenced facility has been issued for review by U.S. EPA. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.state.oh.us/dapc> in Microsoft Word and Adobe Acrobat format. If U.S. EPA does not object to this proposed permit, the permit will be processed for issuance as a final action not less than 45 days from the date of this letter. Please contact me at (614) 644-3631 by the end of the 45 day review period if you wish to object to the proposed permit.

Sincerely,

Michael W. Ahern
Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: Toledo Department of Environmental Services

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

PROPOSED

**Air Pollution Title V Permit
for
Libbey Glass Inc.**

Facility ID: 0448010066

Permit Number: P0088082

Permit Type: Renewal

Issued: 9/29/2008

Effective: To be entered upon final issuance

Expiration: To be entered upon final issuance



State of Ohio Environmental Protection Agency
 Division of Air Pollution Control

Air Pollution Title V Permit
 for
 Libbey Glass Inc.

Table of Contents

Authorization 1

A. Standard Terms and Conditions 2

 1. Federally Enforceable Standard Terms and Conditions 3

 2. Monitoring and Related Record Keeping and Reporting Requirements..... 3

 3. Scheduled Maintenance..... 6

 4. Risk Management Plans 6

 5. Title IV Provisions 6

 6. Severability Clause 7

 7. General Requirements 7

 8. Fees..... 8

 9. Marketable Permit Programs..... 8

 10. Reasonably Anticipated Operating Scenarios 8

 11. Reopening for Cause 8

 12. Federal and State Enforceability 9

 13. Compliance Requirements 9

 14. Permit Shield 10

 15. Operational Flexibility..... 10

 16. Emergencies 11

 17. Off-Permit Changes 11

 18. Compliance Method Requirements 12

 19. Insignificant Activities or Emissions Levels..... 12

 20. Permit to Install Requirement 12

 21. Air Pollution Nuisance 12

 22. Permanent Shutdown of an Emissions Unit 12

 23. Title VI Provisions 13

 24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only 13

 25. Records Retention Requirements Under State Law Only..... 13

 26. Inspections and Information Requests 13

 27. Scheduled Maintenance/Malfunction Reporting 14

 28. Permit Transfers 14



29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations 14

B. Facility-Wide Terms and Conditions..... 15

C. Emissions Unit Terms and Conditions 17

 1. B004, Boiler #1 18

 2. B005, Boiler #2 27

 3. B006, Boiler #3 36

 4. F003, A-1 Forming line..... 45

 5. F004, B-1 Forming line..... 49

 6. F007, F-2 Forming line..... 53

 7. F008, D-3 Forming line 57

 8. F009, E-1 Forming line..... 61

 9. F010, F-1 Forming line..... 65

 10. F011, D-2 Forming line 69

 11. F012, G-2 Forming line 73

 12. F013, G-3 Forming line 77

 13. F014, G-6 Forming line 81

 14. F015, G-5 Forming line 85

 15. F018, Roadways and parking lots 89

 16. F019, G-4 Forming line 94

 17. F020, D-1 Forming line 103

 18. P003, B - Furnace..... 112

 19. P005, D - Furnace..... 117

 20. P006, E - Furnace..... 122

 21. P007, G - Furnace 127

 22. P010, Slitters and notchers 146

 23. P011, Decorating line #1..... 149

 24. P012, Decorating line #2..... 152

 25. P021, Mold paste room..... 155

 26. P022, F - Furnace 157



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Proposed Title V Permit

Permit Number: P0088082

Facility ID: 0448010066

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 0448010066

Facility Description: manufacturer of pressed and blown glass

Application Number(s): A0019204, A0019205, A0019206, A0019207

Permit Number: P0088082

Permit Description: Libbey Glass

Permit Type: Renewal

Issue Date: 9/29/2008

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

Superseded Permit Number:

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Libbey Glass Inc.
1201 Buckeye Street
Toledo, OH 43611

Ohio 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 Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Toledo Department of Environmental Services. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Proposed Title V Permit

Permit Number: P0088082

Facility ID: 0448010066

Effective Date: To be entered upon final issuance

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. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting
 - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
(Authority for term: ORC 3704.036(A))

2. 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 (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), 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.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))
- 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 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.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))
- c) The permittee shall submit required reports in the following manner:
 - (1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:



Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.



These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- (3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.



If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

- (4) 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

- (5) Reports of any required monitoring and/or record keeping information shall be submitted to Toledo Department of Environmental Services.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

4. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a) a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b) as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

5. 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.

(Authority for term: OAC rule 3745-77-07(A)(5))



6. Severability Clause

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.

(Authority for term: OAC rule 3745-77-07(A)(6))

7. General Requirements

- a) The permittee must comply with all terms and conditions of this permit. 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 reissuance, or modification, or for denial of a permit renewal application.
- 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, reopened, revoked, or revoked and reissued, for cause, in accordance with Standard Term and Condition A.11 below. 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, reopening 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.
- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
 - (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
 - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or
 - (3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee



shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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.

(Authority for term: OAC rule 3745-77-07(A)(8))

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.



- d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.
(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that 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, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

13. Compliance Requirements

- a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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 paragraph (E) of OAC rule 3745-77-03.
 - (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 appropriate Ohio EPA District Office or local air agency 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.
- d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the



Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

- (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.
- (2) Compliance certifications shall include the following:
 - (a) An identification of each term or condition of this permit that is the basis of the certification.
 - (b) The permittee's current compliance status.
 - (c) Whether compliance was continuous or intermittent.
 - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

(3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

14. Permit Shield

a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as



soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

(Authority for term: OAC rule 3745-77-07(G))

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))



18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that has one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

20. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-07(A)(1))

21. 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.

(Authority for term: OAC rule 3745-77-07(A)(1))

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the responsible 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 responsible official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

(Authority for term: OAC rule 3745-77-01)



23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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 (i.e., postmarked) 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.)

25. Records Retention Requirements Under State Law Only

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.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports



pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

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

27. 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 of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of 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 emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

(Authority for term: OAC rule 3745-77-01(C))

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a) where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or
- b) where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; or
- c) where the company's responsible official has certified that an emissions unit has been permanently shut down.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Proposed Title V Permit

Permit Number: P0088082

Facility ID: 0448010066

Effective Date: To be entered upon final issuance

B. Facility-Wide Terms and Conditions



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) 3.

2. The following insignificant emissions units are located at this facility:

B003 - boiler #4, 7.323 mmBtu; and
P023 - mycalex machining room.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21.

[Authority for term: OAC rule 3745-77-07(A)(13)]

3. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

F001 - batch unloading facilities;
F002 - batch house;
G001 - gasoline dispensing facility;
K001 - maintenance paint booth
T002 - 10,000 gallon #2 fuel oil storage tank;
T003 - 30,000 gallon #2 fuel oil storage tank;
Z002 - groundwater treatment plant;
Z003 - cullet crusher #1;
Z004 - cullet crusher #2; and
Z005 - forehearth stirrer preheater.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Proposed Title V Permit

Permit Number: P0088082

Facility ID: 0448010066

Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. B004, Boiler #1

Operations, Property and/or Equipment Description:

10.3 MMBTU/hr Cleaver Brooks boiler model CB 200-227 gas with #2 oil backup

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 operations(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. 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
10.3 mmBtu/hr boiler fired with natural gas or #2 fuel oil with no controls		
a.	OAC rule 3745-31-05(A)(3) established by PTI 04-00367, as modified on February 19, 2002	carbon monoxide emissions (CO) shall not exceed 0.09 pound per million Btu of actual heat input;
		nitrogen oxides emissions (NOx) shall not exceed 0.145 pound per million Btu of actual heat input;
		sulfur dioxide emissions (SO2) shall not exceed 0.52 pound per million Btu of actual heat input;
		volatile organic compound emissions (VOC) 0.01 pound per million Btu of actual heat input; and
		see b)(2)a.
b.	OAC rule 3745-31-05(D) synthetic minor limitation established by PTI 04-00367, as modified on February 19, 2002	see b)(2)b.
c.	OAC rule 3745-17-07(A)(1)	see b)(2)c.
d.	OAC rule 3745-17-10(B)(1)	particulate emissions (PE) shall not exceed 0.020 pound per million Btu of actual heat input



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-18-06(D)	see b)(2)d.
f.	OAC rule 3745-21-07(B)	see b)(2)e.
g.	OAC rule 3745-21-08(B)	see b)(2)f.

(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) and OAC rule 3745-17-10(B)(1).
- b. The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 34 tons of CO, 18.4 tons of NOx, 1.23 tons of PE, 38.04 tons of SO2 or 0.74 ton of VOC, as rolling, 12-month summations.
- c. Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except:
 - i. visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes; but
 - ii. shall not exceed 60 percent opacity, as a six-minute average, at any time; and
 - iii. the presence of uncombined water shall not be deemed a violation for failure of stack emissions meeting this requirement.
- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- e. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 04-00367.

On February 18, 2008, OAC rule 3745-21-07 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- f. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply



with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 04-00367.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas and/or #2 fuel oil in this emissions unit.

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

- (2) The quality of the oil burned in this emissions unit shall meet on an "as received" basis a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.52 pound sulfur dioxide/mmBtu actual heat input. Compliance with the above-mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

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

- (3) The combined #2 fuel oil usage in emissions units B004, B005, and B006 shall not exceed 1,040,000 gallons in any calendar year.

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

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas and/or #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

- (2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard



Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the director.

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

- (3) The permittee shall measure and record on a monthly basis, the total quantity of oil combusted in emissions units B004, B005, and B006 as a monthly total and as a rolling, 12-month summation.

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

- (4) The permittee shall calculate and record, on a monthly basis, the combined sulfur dioxide emissions (tons/year) from B004, B005, and B006 as a rolling, 12-month summation.

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports which include the following information:

- a. an identification of each day when a fuel other than natural gas and/or #2 fuel oil was burned in this emissions unit;
- b. an identification of each month when the sulfur dioxide emission rate (lb/mmBtu) for any oil received during the calendar month exceeded 0.52 pound of sulfur dioxide per million Btu;
- c. an identification of each month in which the combined #2 fuel oil usage of emissions units B004, B005, and B006 exceeded 1,040,000 gallons as a rolling, 12-month summation, and the actual combined #2 fuel oil usage for each such month; and
- d. an identification of each month during which the combined sulfur dioxide emission rate, as a rolling, 12-month summation, for emissions units B004, B005, and B006 exceeded 38.04 tons of sulfur dioxide, and the actual combined sulfur dioxide emission rate for each such month.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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



f) Testing Requirements

(1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

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).

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

b. Emission Limitation:

0.09 pound of carbon monoxide per million Btu of actual heat input

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors as follows:

for natural gas: divide the emission factor of 84 pounds of carbon monoxide emissions per million cubic feet of natural gas (Table 1.4-2 dated 7/98) by an average natural gas heating value of 1,020 Btu per standard cubic foot natural gas, and

for #2 fuel oil: divide the emission factor for #2 fuel oil combustion of 5 pounds of carbon monoxide per thousand gallons (Table 1.3-1, 9/98 Edition) by the #2 fuel oil heating value of 140 million Btu per thousand gallons.

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

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

c. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 34 tons of carbon monoxide.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:



multiply the AP-42 (Table 1.3-1, 9/98 Edition) carbon monoxide emission factor for #2 fuel oil combustion of 5 pounds of carbon monoxide per thousand gallons by the maximum allowable oil usage limitation of 1,040,000 gallons in a calendar year and add the product of the AP-42 (7/98 Edition) carbon monoxide emission factor of 84 pounds of carbon monoxide emissions per million cubic feet of natural gas multiplied by the calculated maximum annual natural gas usage of 120 million standard cubic feet and then divide by 2000 lbs/ton.

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

d. Emission Limitation:

0.020 pound of particulate emissions per million Btu of actual heat input

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, as follows:

for natural gas; divide the emission factor of 1.9 pounds of PE per million standard cubic feet (Table 1.4-2 dated 7/98) by a heating value of 1020 Btus per standard cubic foot, and

for #2 fuel oil; divide the emission factor of 2 pounds per thousand gallons (Table 1.3-1, 9/98 Edition) by average #2 fuel oil heating value of 140 million Btu per thousand gallons.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

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

e. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 1.23 tons of particulate.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (1.3-1, 9/98 Edition) particulate emission factor for #2 fuel oil combustion of 2 pounds per thousand gallons by the maximum allowable oil usage limitation of 1,040,000 gallons in a calendar year and add the product of the AP-42 (1.4-2, 7/98 Edition) emission factor of 1.9 pounds of particulate emissions per million cubic feet of natural gas multiplied by the calculated maximum annual natural gas usage of 120 million standard cubic feet and then divide by 2000 lbs/ton.



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

f. Emission Limitation:

0.145 pound of nitrogen oxides per million Btu of actual heat input

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors as follows:

for natural gas: divide the emission factor of 100 pounds of nitrogen oxides emissions per million cubic feet of natural gas (Table 1.4-2 dated 7/98) by an average natural gas heating value of 1,020 Btu per standard cubic foot natural gas, and

for #2 fuel oil: divide the emission factor for #2 fuel oil combustion of 20 pounds of nitrogen oxides emissions per thousand gallons (Table 1.3-1, 9/98 Edition) by the #2 fuel oil heating value of 140 million Btu per thousand gallons.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

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

g. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 18.4 tons of nitrogen oxides.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (Table 1.3-1, 9/98 Edition) nitrogen oxides emission factor for #2 fuel oil combustion of 20 pounds of nitrogen oxides per thousand gallons by the maximum allowable oil usage limitation of 1,040,000 gallons in a calendar year and add the product of the AP-42 (1.4-1, 7/98 Edition) nitrogen oxides emission factor of 100 pounds of nitrogen oxides emissions per million cubic feet of natural gas multiplied by the calculated maximum annual natural gas usage of 120 million standard cubic feet and then divide by 2000 lbs/ton.

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

h. Emission Limitation:

0.52 pound of sulfur dioxide emissions per million Btu of actual heat input



Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors as follows:

for natural gas; divide the emission factor of 0.6 pound of SO₂ emissions per million standard cubic feet (Table 1.4-2 dated 7/98) by a heating value of 1020 Btus per standard cubic foot, and

for #2 fuel oil: divide the emission factor for #2 fuel oil combustion of 142S pounds of SO₂ per thousand gallons (Table 1.3-1, 9/98 Edition where S is the percentage of sulfur in the fuel recorded in d) by the fuel oil heating value, in mmBtu/1000gal recorded in d).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 6 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 written approval from the Ohio EPA.

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

i. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 38.04 tons of sulfur dioxide, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (Table 1.3-1, 9/98 Edition) sulfur dioxide emission factor for #2 fuel oil combustion of 142S pounds of sulfur dioxide per thousand gallons where S = 0.5, by the maximum allowable oil usage limitation of 1,040,000 gallons in a calendar year and add the product of the AP-42 (1.4-1, 7/98 Edition) sulfur dioxide emission factor of 0.6 pound of sulfur dioxide emissions per million cubic feet of natural gas multiplied by the calculated maximum annual natural gas usage of 120 million standard cubic feet and then divide by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the sulfur dioxide emission factors through emission testing performed in accordance with Methods 1 thru 4 and 6 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 written approval from the Ohio EPA.

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

j. Emission Limitation:

0.01 pound of volatile organic compounds per million Btu of actual heat input



Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, as follows:

for natural gas; divide the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet (Table 1.4-2 dated 7/98) by a heating value of 1020 Btus per standard cubic foot, and

for #2 fuel oil; divide the emission factor of 0.2 pound per thousand gallons (Table 1.3-3, 9/98 Edition) by average #2 fuel oil heating value of 140 million Btu per thousand gallons.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

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

k. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 0.74 ton of volatile organic compounds.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (7/98 Edition) volatile organic compounds emission factor of 5.5 pounds of volatile organic compound emissions per million cubic feet of natural gas by the calculated maximum annual natural gas usage of 270 million standard cubic feet and then divide by 2000 lbs/ton.

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

g) Miscellaneous Requirements

(1) None.



2. B005, Boiler #2

Operations, Property and/or Equipment Description:

10.3 MMBTU/hr Cleaver Brooks boiler model CB 200-227

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 operations(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. 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
	10.3 mmBtu/hr boiler fired with natural gas or #2 fuel oil with no controls	
a.	OAC rule 3745-31-05(A)(3) established by PTI 04-00367, as modified on February 19, 2002	carbon monoxide emissions (CO) shall not exceed 0.09 pound per million Btu of actual heat input;
		nitrogen oxides emissions (NOx) shall not exceed 0.145 pound per million Btu of actual heat input;
		sulfur dioxide emissions (SO2) shall not exceed 0.52 pound per million Btu of actual heat input;
		volatile organic compound emissions (VOC) 0.01 pound per million Btu of actual heat input; and
		see b)(2)a.
b.	OAC rule 3745-31-05(D) synthetic minor limitation established by PTI 04-00367, as modified on February 19, 2002	see b)(2)b.
c.	OAC rule 3745-17-07(A)(1)	see b)(2)c.
d.	OAC rule 3745-17-10(B)(1)	particulate emissions (PE) shall not exceed 0.020 pound per million Btu of actual heat input



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-18-06(D)	see b)(2)d.
f.	OAC rule 3745-21-07(B)	see b)(2)e.
g.	OAC rule 3745-21-08(B)	see b)(2)f.

(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) and OAC rule 3745-17-10(B)(1).
- b. The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 34 tons of CO, 18.4 tons of NOx, 1.23 tons of PE, 38.04 tons of SO2 or 0.74 ton of VOC, as rolling, 12-month summations.
- c. Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except:
 - i. visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes; but
 - ii. shall not exceed 60 percent opacity, as a six-minute average, at any time; and
 - iii. the presence of uncombined water shall not be deemed a violation for failure of stack emissions meeting this requirement.
- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- e. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 04-00367.

On February 18, 2008, OAC rule 3745-21-07 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- f. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply



with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 04-00367.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas and/or #2 fuel oil in this emissions unit.

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

- (2) The quality of the oil burned in this emissions unit shall meet on an "as received" basis a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.52 pound sulfur dioxide/mmBtu actual heat input. Compliance with the above-mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

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

- (3) The combined #2 fuel oil usage in emissions units B004, B005, and B006 shall not exceed 1,040,000 gallons in any calendar year.

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

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas and/or #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

- (2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard



Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the director.

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

- (3) The permittee shall measure and record on a monthly basis, the total quantity of oil combusted in emissions units B004, B005, and B006 as a monthly total and as a rolling, 12-month summation.

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

- (4) The permittee shall calculate and record, on a monthly basis, the combined sulfur dioxide emissions (tons/year) from B004, B005, and B006 as a rolling, 12-month summation.

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports which include the following information:

- a. an identification of each day when a fuel other than natural gas and/or #2 fuel oil was burned in this emissions unit;
- b. an identification of each month when the sulfur dioxide emission rate (lb/mmBtu) for any oil received during the calendar month exceeded 0.52 pound of sulfur dioxide per million Btu;
- c. an identification of each month in which the combined #2 fuel oil usage of emissions units B004, B005, and B006 exceeded 1,040,000 gallons as a rolling, 12-month summation, and the actual combined #2 fuel oil usage for each such month; and
- d. an identification of each month during which the combined sulfur dioxide emission rate, as a rolling, 12-month summation, for emissions units B004, B005, and B006 exceeded 38.04 tons of sulfur dioxide, and the actual combined sulfur dioxide emission rate for each such month.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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



f) Testing Requirements

(1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

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).

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

b. Emission Limitation:

0.09 pound of carbon monoxide per million Btu of actual heat input

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors as follows:

for natural gas: divide the emission factor of 84 pounds of carbon monoxide emissions per million cubic feet of natural gas (Table 1.4-2 dated 7/98) by an average natural gas heating value of 1,020 Btu per standard cubic foot natural gas, and

for #2 fuel oil: divide the emission factor for #2 fuel oil combustion of 5 pounds of carbon monoxide per thousand gallons (Table 1.3-1, 9/98 Edition) by the #2 fuel oil heating value of 140 million Btu per thousand gallons.

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

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

c. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 34 tons of carbon monoxide.

Applicable Compliance Method:



Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (Table 1.3-1, 9/98 Edition) carbon monoxide emission factor for #2 fuel oil combustion of 5 pounds of carbon monoxide per thousand gallons by the maximum allowable oil usage limitation of 1,040,000 gallons in a calendar year and add the product of the AP-42 (7/98 Edition) carbon monoxide emission factor of 84 pounds of carbon monoxide emissions per million cubic feet of natural gas multiplied by the calculated maximum annual natural gas usage of 120 million standard cubic feet and then divide by 2000 lbs/ton.

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

d. Emission Limitation:

0.020 pound of particulate emissions per million Btu of actual heat input

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, as follows:

for natural gas; divide the emission factor of 1.9 pounds of PE per million standard cubic feet (Table 1.4-2 dated 7/98) by a heating value of 1020 Btus per standard cubic foot, and

for #2 fuel oil; divide the emission factor of 2 pounds per thousand gallons (Table 1.3-1, 9/98 Edition) by average #2 fuel oil heating value of 140 million Btu per thousand gallons.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

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

e. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 1.23 tons of particulate.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (1.3-1, 9/98 Edition) particulate emission factor for #2 fuel oil combustion of 2 pounds per thousand gallons by the maximum allowable oil usage limitation of 1,040,000 gallons in a calendar year and add the product of the AP-42 (1.4-2, 7/98 Edition) emission factor of 1.9 pounds of particulate emissions per million cubic feet of natural gas multiplied by the calculated



maximum annual natural gas usage of 120 million standard cubic feet and then divide by 2000 lbs/ton.

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

f. Emission Limitation:

0.145 pound of nitrogen oxides per million Btu of actual heat input

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors as follows:

for natural gas: divide the emission factor of 100 pounds of nitrogen oxides emissions per million cubic feet of natural gas (Table 1.4-2 dated 7/98) by an average natural gas heating value of 1,020 Btu per standard cubic foot natural gas, and

for #2 fuel oil: divide the emission factor for #2 fuel oil combustion of 20 pounds of nitrogen oxides emissions per thousand gallons (Table 1.3-1, 9/98 Edition) by the #2 fuel oil heating value of 140 million Btu per thousand gallons.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

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

g. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 18.4 tons of nitrogen oxides.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (Table 1.3-1, 9/98 Edition) nitrogen oxides emission factor for #2 fuel oil combustion of 20 pounds of nitrogen oxides per thousand gallons by the maximum allowable oil usage limitation of 1,040,000 gallons in a calendar year and add the product of the AP-42 (1.4-1, 7/98 Edition) nitrogen oxides emission factor of 100 pounds of nitrogen oxides emissions per million cubic feet of natural gas multiplied by the calculated maximum annual natural gas usage of 120 million standard cubic feet and then divide by 2000 lbs/ton.

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

h. Emission Limitation:

0.52 pound of sulfur dioxide emissions per million Btu of actual heat input



Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors as follows:

for natural gas; divide the emission factor of 0.6 pound of SO₂ emissions per million standard cubic feet (Table 1.4-2 dated 7/98) by a heating value of 1020 Btus per standard cubic foot, and

for #2 fuel oil: divide the emission factor for #2 fuel oil combustion of 142S pounds of SO₂ per thousand gallons (Table 1.3-1, 9/98 Edition where S is the percentage of sulfur in the fuel recorded in d) by the fuel oil heating value, in mmBtu/1000gal recorded in d).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 6 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 written approval from the Ohio EPA.

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

i. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 38.04 tons of sulfur dioxide, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (Table 1.3-1, 9/98 Edition) sulfur dioxide emission factor for #2 fuel oil combustion of 142S pounds of sulfur dioxide per thousand gallons where S = 0.5, by the maximum allowable oil usage limitation of 1,040,000 gallons in a calendar year and add the product of the AP-42 (1.4-1, 7/98 Edition) sulfur dioxide emission factor of 0.6 pound of sulfur dioxide emissions per million cubic feet of natural gas multiplied by the calculated maximum annual natural gas usage of 120 million standard cubic feet and then divide by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the sulfur dioxide emission factors through emission testing performed in accordance with Methods 1 thru 4 and 6 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 written approval from the Ohio EPA.

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

j. Emission Limitation:

0.01 pound of volatile organic compounds per million Btu of actual heat input



Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, as follows:

for natural gas; divide the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet (Table 1.4-2 dated 7/98) by a heating value of 1020 Btus per standard cubic foot, and

for #2 fuel oil; divide the emission factor of 0.2 pound per thousand gallons (Table 1.3-3, 9/98 Edition) by average #2 fuel oil heating value of 140 million Btu per thousand gallons.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

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

k. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 0.74 ton of volatile organic compounds.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (7/98 Edition) volatile organic compounds emission factor of 5.5 pounds of volatile organic compound emissions per million cubic feet of natural gas by the calculated maximum annual natural gas usage of 270 million standard cubic feet and then divide by 2000 lbs/ton.

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

g) Miscellaneous Requirements

- (1) None.



3. B006, Boiler #3

Operations, Property and/or Equipment Description:

10.3 MMBTU/hr Cleaver Brooks boiler model CB 200-227

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 operations(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. 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
10.3 mmBtu/hr boiler fired with natural gas or #2 fuel oil with no controls		
a.	OAC rule 3745-31-05(A)(3) established by PTI 04-00367, as modified on February 19, 2002	carbon monoxide emissions (CO) shall not exceed 0.09 pound per million Btu of actual heat input;
		nitrogen oxides emissions (NOx) shall not exceed 0.145 pound per million Btu of actual heat input;
		sulfur dioxide emissions (SO2) shall not exceed 0.52 pound per million Btu of actual heat input;
		volatile organic compound emissions (VOC) 0.01 pound per million Btu of actual heat input; and
		see b)(2)a.
b.	OAC rule 3745-31-05(D) synthetic minor limitation established by PTI 04-00367, as modified on February 19, 2002	see b)(2)b.
c.	OAC rule 3745-17-07(A)(1)	see b)(2)c.
d.	OAC rule 3745-17-10(B)(1)	particulate emissions (PE) shall not exceed 0.020 pound per million Btu of actual heat input



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-18-06(D)	see b)(2)d.
f.	OAC rule 3745-21-07(B)	see b)(2)e.
g.	OAC rule 3745-21-08(B)	see b)(2)f.

(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) and OAC rule 3745-17-10(B)(1).
- b. The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 34 tons of CO, 18.4 tons of NOx, 1.23 tons of PE, 38.04 tons of SO2 or 0.74 ton of VOC, as rolling, 12-month summations.
- c. Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except:
 - i. visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes; but
 - ii. shall not exceed 60 percent opacity, as a six-minute average, at any time; and
 - iii. the presence of uncombined water shall not be deemed a violation for failure of stack emissions meeting this requirement.
- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- e. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 04-00367.

On February 18, 2008, OAC rule 3745-21-07 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- f. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply



with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 04-00367.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas and/or #2 fuel oil in this emissions unit.

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

- (2) The quality of the oil burned in this emissions unit shall meet on an "as received" basis a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 0.52 pound sulfur dioxide/mmBtu actual heat input. Compliance with the above-mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil.

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

- (3) The combined #2 fuel oil usage in emissions units B004, B005, and B006 shall not exceed 1,040,000 gallons in any calendar year.

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

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas and/or #2 fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

- (2) For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as D240 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294, Standard



Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the director.

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

- (3) The permittee shall measure and record on a monthly basis, the total quantity of oil combusted in emissions units B004, B005, and B006 as a monthly total and as a rolling, 12-month summation.

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

- (4) The permittee shall calculate and record, on a monthly basis, the combined sulfur dioxide emissions (tons/year) from B004, B005, and B006 as a rolling, 12-month summation.

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports which include the following information:

- a. an identification of each day when a fuel other than natural gas and/or #2 fuel oil was burned in this emissions unit;
- b. an identification of each month when the sulfur dioxide emission rate (lb/mmBtu) for any oil received during the calendar month exceeded 0.52 pound of sulfur dioxide per million Btu;
- c. an identification of each month in which the combined #2 fuel oil usage of emissions units B004, B005, and B006 exceeded 1,040,000 gallons as a rolling, 12-month summation, and the actual combined #2 fuel oil usage for each such month; and
- d. an identification of each month during which the combined sulfur dioxide emission rate, as a rolling, 12-month summation, for emissions units B004, B005, and B006 exceeded 38.04 tons of sulfur dioxide, and the actual combined sulfur dioxide emission rate for each such month.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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



f) Testing Requirements

(1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

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).

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

b. Emission Limitation:

0.09 pound of carbon monoxide per million Btu of actual heat input

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors as follows:

for natural gas: divide the emission factor of 84 pounds of carbon monoxide emissions per million cubic feet of natural gas (Table 1.4-2 dated 7/98) by an average natural gas heating value of 1,020 Btu per standard cubic foot natural gas, and

for #2 fuel oil: divide the emission factor for #2 fuel oil combustion of 5 pounds of carbon monoxide per thousand gallons (Table 1.3-1, 9/98 Edition) by the #2 fuel oil heating value of 140 million Btu per thousand gallons.

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

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

c. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 34 tons of carbon monoxide.

Applicable Compliance Method:



Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (Table 1.3-1, 9/98 Edition) carbon monoxide emission factor for #2 fuel oil combustion of 5 pounds of carbon monoxide per thousand gallons by the maximum allowable oil usage limitation of 1,040,000 gallons in a calendar year and add the product of the AP-42 (7/98 Edition) carbon monoxide emission factor of 84 pounds of carbon monoxide emissions per million cubic feet of natural gas multiplied by the calculated maximum annual natural gas usage of 120 million standard cubic feet and then divide by 2000 lbs/ton.

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

d. Emission Limitation:

0.020 pound of particulate emissions per million Btu of actual heat input

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, as follows:

for natural gas; divide the emission factor of 1.9 pounds of PE per million standard cubic feet (Table 1.4-2 dated 7/98) by a heating value of 1020 Btus per standard cubic foot, and

for #2 fuel oil; divide the emission factor of 2 pounds per thousand gallons (Table 1.3-1, 9/98 Edition) by average #2 fuel oil heating value of 140 million Btu per thousand gallons.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

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

e. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 1.23 tons of particulate.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (1.3-1, 9/98 Edition) particulate emission factor for #2 fuel oil combustion of 2 pounds per thousand gallons by the maximum allowable oil usage limitation of 1,040,000 gallons in a calendar year and add the product of the AP-42 (1.4-2, 7/98 Edition) emission factor of 1.9 pounds of particulate emissions per million cubic feet of natural gas multiplied by the calculated



maximum annual natural gas usage of 120 million standard cubic feet and then divide by 2000 lbs/ton.

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

f. Emission Limitation:

0.145 pound of nitrogen oxides per million Btu of actual heat input

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors as follows:

for natural gas: divide the emission factor of 100 pounds of nitrogen oxides emissions per million cubic feet of natural gas (Table 1.4-2 dated 7/98) by an average natural gas heating value of 1,020 Btu per standard cubic foot natural gas, and

for #2 fuel oil: divide the emission factor for #2 fuel oil combustion of 20 pounds of nitrogen oxides emissions per thousand gallons (Table 1.3-1, 9/98 Edition) by the #2 fuel oil heating value of 140 million Btu per thousand gallons.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

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

g. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 18.4 tons of nitrogen oxides.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (Table 1.3-1, 9/98 Edition) nitrogen oxides emission factor for #2 fuel oil combustion of 20 pounds of nitrogen oxides per thousand gallons by the maximum allowable oil usage limitation of 1,040,000 gallons in a calendar year and add the product of the AP-42 (1.4-1, 7/98 Edition) nitrogen oxides emission factor of 100 pounds of nitrogen oxides emissions per million cubic feet of natural gas multiplied by the calculated maximum annual natural gas usage of 120 million standard cubic feet and then divide by 2000 lbs/ton.

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

h. Emission Limitation:

0.52 pound of sulfur dioxide emissions per million Btu of actual heat input



Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors as follows:

for natural gas; divide the emission factor of 0.6 pound of SO₂ emissions per million standard cubic feet (Table 1.4-2 dated 7/98) by a heating value of 1020 Btus per standard cubic foot, and

for #2 fuel oil: divide the emission factor for #2 fuel oil combustion of 142S pounds of SO₂ per thousand gallons (Table 1.3-1, 9/98 Edition where S is the percentage of sulfur in the fuel recorded in d) by the fuel oil heating value, in mmBtu/1000gal recorded in d).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 6 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 written approval from the Ohio EPA.

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

i. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 38.04 tons of sulfur dioxide, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (Table 1.3-1, 9/98 Edition) sulfur dioxide emission factor for #2 fuel oil combustion of 142S pounds of sulfur dioxide per thousand gallons where S = 0.5, by the maximum allowable oil usage limitation of 1,040,000 gallons in a calendar year and add the product of the AP-42 (1.4-1, 7/98 Edition) sulfur dioxide emission factor of 0.6 pound of sulfur dioxide emissions per million cubic feet of natural gas multiplied by the calculated maximum annual natural gas usage of 120 million standard cubic feet and then divide by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the sulfur dioxide emission factors through emission testing performed in accordance with Methods 1 thru 4 and 6 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 written approval from the Ohio EPA.

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

j. Emission Limitation:

0.01 pound of volatile organic compounds per million Btu of actual heat input



Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, as follows:

for natural gas; divide the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet (Table 1.4-2 dated 7/98) by a heating value of 1020 Btus per standard cubic foot, and

for #2 fuel oil; divide the emission factor of 0.2 pound per thousand gallons (Table 1.3-3, 9/98 Edition) by average #2 fuel oil heating value of 140 million Btu per thousand gallons.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

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

k. Emission Limitation:

The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 0.74 ton of volatile organic compounds.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculation:

multiply the AP-42 (7/98 Edition) volatile organic compounds emission factor of 5.5 pounds of volatile organic compound emissions per million cubic feet of natural gas by the calculated maximum annual natural gas usage of 270 million standard cubic feet and then divide by 2000 lbs/ton.

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

g) Miscellaneous Requirements

(1) None.



4. F003, A-1 Forming line

Operations, Property and/or Equipment Description:

Glass forming line A-1 and annealing lehr

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 operations(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. 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
	glass forming line A-1 and annealing lehr with no controls	
a.	OAC rule 3745-17-07(B)(1)	see b)(2)a.
b.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)b.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide shall not exceed 47 pounds per hour; and
		see b)(2)c.
d.	OAC rule 3745-21-07(G)(2)	emissions of organic materials shall not exceed 8 pounds per hour and 40 pounds per day
e.	OAC rule 3745-21-07(G)(9)(f)	exemption, see b)(2)d.

(2) Additional Terms and Conditions

a. Visible particulate emissions shall not exceed 20% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.

b. It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

c. The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation.



- d. The provisions of OAC rule 3745-21-07(G)(2) shall not apply on any day during which the emissions of organic materials into the atmosphere are not photochemically reactive.
 - e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in d)(2), e)(1), and f)(1)c) shall be void.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
 - (2) For each day that a photochemically reactive material (i.e., mold release agent and/or cleanup material) is employed in this emissions unit, the permittee shall collect and record the following information:
 - a. the company identification of each mold release agent and photochemically reactive cleanup material employed;
 - b. the number of gallons of each mold release agent and photochemically reactive cleanup material employed;
 - c. the organic compound content of each mold release agent and photochemically reactive cleanup material employed, in pounds per gallon;
 - d. the total daily organic compound emission rate for all mold release agents and photochemically reactive cleanup materials employed in this emissions unit, in pounds per day;
 - e. the total number of hours this emissions unit was in operation using liquid organic materials; and
 - f. the average hourly organic compound emission rate, i.e., (d)/(e), in pounds per hour (average).

[Note: The mold release agent information must be for the material as employed, including any thinning solvents added at the emissions unit. Also, the definitions of



"liquid organic material" and "photochemically reactive material" are based upon OAC rule 3745-21-01(C).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - b. an identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - c. an identification of each day during which the organic compound emissions exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:
 - a. Emission Limitation:
20% opacity as a 3-minute average

Applicable Compliance Method:

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)



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

b. Emission Limitation:

47 pounds per hour of sulfur dioxide

Applicable Compliance Method:

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

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

c. Emission Limitation:

8 pounds per hour and 40 pounds per day of organic materials

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d)(2). Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

(1) None.



5. F004, B-1 Forming line

Operations, Property and/or Equipment Description:

Glass forming line B-1 and annealing lehr

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 operations(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. 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
glass forming line B-1 and annealing lehr with no controls		
a.	OAC rule 3745-17-07(B)(1)	see b)(2)a.
b.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)b.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide shall not exceed 43 pounds per hour; and
		see b)(2)c.
d.	OAC rule 3745-21-07(G)(2)	emissions of organic materials shall not exceed 8 pounds per hour and 40 pounds per day
e.	OAC rule 3745-21-07(G)(9)(f)	exemption, see b)(2)d.

(2) Additional Terms and Conditions

a. Visible particulate emissions shall not exceed 20% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.

b. It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

c. The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation.



- d. The provisions of OAC rule 3745-21-07(G)(2) shall not apply on any day during which the emissions of organic materials into the atmosphere are not photochemically reactive.
 - e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in d)(2), e)(1)a., and f)(1)c. shall be void.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
 - (2) For each day that a photochemically reactive material (i.e., mold release agent and/or cleanup material) is employed in this emissions unit, the permittee shall collect and record the following information:
 - a. the company identification of each mold release agent and photochemically reactive cleanup material employed;
 - b. the number of gallons of each mold release agent and photochemically reactive cleanup material employed;
 - c. the organic compound content of each mold release agent and photochemically reactive cleanup material employed, in pounds per gallon;
 - d. the total daily organic compound emission rate for all mold release agents and photochemically reactive cleanup materials employed in this emissions unit, in pounds per day;
 - e. the total number of hours this emissions unit was in operation using liquid organic materials; and
 - f. the average hourly organic compound emission rate, i.e., d./e., in pounds per hour (average).

[Note: The mold release agent information must be for the material as employed, including any thinning solvents added at the emissions unit. Also, the definitions of



"liquid organic material" and "photochemically reactive material" are based upon OAC rule 3745-21-01(C).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - b. an identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - c. an identification of each day during which the organic compound emissions exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:
 - a. Emission Limitation:
20% opacity as a 3-minute average

Applicable Compliance Method:

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)



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

b. Emission Limitation:

43 lbs/hr of sulfur dioxide

Applicable Compliance Method:

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

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

c. Emission Limitation:

8 lbs/hr and 40 lbs/day of organic materials

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d)(2). Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

(1) None.



6. F007, F-2 Forming line

Operations, Property and/or Equipment Description:

Glass forming line F-2 and annealing lehr

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 operations(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. 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
	glass forming line F-2 and annealing lehr with no controls	
a.	OAC rule 3745-17-07(B)(1)	see b)(2)a.
b.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)b.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide shall not exceed 52 pounds per hour; and
		see b)(2)c.
d.	OAC rule 3745-21-07(G)(2)	emissions of organic materials shall not exceed 8 pounds per hour and 40 pounds per day
e.	OAC rule 3745-21-07(G)(9)(f)	exemption, see b)(2)d.

(2) Additional Terms and Conditions

a. Visible particulate emissions shall not exceed 20% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.

b. It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

c. The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation.



- d. The provisions of OAC rule 3745-21-07(G)(2) shall not apply on any day during which the emissions of organic materials into the atmosphere are not photochemically reactive.
 - e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in d)(2), e)(1), and f)(1)c) shall be void.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
 - (2) For each day that a photochemically reactive material (i.e., mold release agent and/or cleanup material) is employed in this emissions unit, the permittee shall collect and record the following information:
 - a. the company identification of each mold release agent and photochemically reactive cleanup material employed;
 - b. the number of gallons of each mold release agent and photochemically reactive cleanup material employed;
 - c. the organic compound content of each mold release agent and photochemically reactive cleanup material employed, in pounds per gallon;
 - d. the total daily organic compound emission rate for all mold release agents and photochemically reactive cleanup materials employed in this emissions unit, in pounds per day;
 - e. the total number of hours this emissions unit was in operation using liquid organic materials; and
 - f. the average hourly organic compound emission rate, i.e., d./e., in pounds per hour (average).

[Note: The mold release agent information must be for the material as employed, including any thinning solvents added at the emissions unit. Also, the definitions of



"liquid organic material" and "photochemically reactive material" are based upon OAC rule 3745-21-01(C).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - b. an identification of each day during which the average hourly organic compound emissions exceeded 8 lbs/hr, and the actual average hourly organic compound emissions for each such day; and
 - c. an identification of each day during which the organic compound emissions exceeded 40 lbs/day, and the actual organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:
 - a. Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

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)



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

b. Emission Limitation:

52 lbs/hr of sulfur dioxide

Applicable Compliance Method:

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

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

c. Emission Limitation:

8 lbs/hr and 40 lbs/day of organic materials

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d)(2). Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

(1) None.



7. F008, D-3 Forming line

Operations, Property and/or Equipment Description:

Glass forming line D-3 and annealing lehr

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 operations(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. 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
glass forming line D-3 and annealing lehr with no controls		
a.	OAC rule 3745-17-07(B)(1)	see b)(2)a.
b.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)b.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide shall not exceed 41 pounds per hour; and
		see b)(2)c.
d.	OAC rule 3745-21-07(G)(2)	emissions of organic materials shall not exceed 8 pounds per hour and 40 pounds per day
e.	OAC rule 3745-21-07(G)(9)(f)	exemption, see b)(2)d.

(2) Additional Terms and Conditions

a. Visible particulate emissions shall not exceed 20% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.

b. It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

c. The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation.



- d. The provisions of OAC rule 3745-21-07(G)(2) shall not apply on any day during which the emissions of organic materials into the atmosphere are not photochemically reactive.
 - e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in d)(2), e)(1), and f)(1)c) shall be void.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
 - (2) For each day that a photochemically reactive material (i.e., mold release agent and/or cleanup material) is employed in this emissions unit, the permittee shall collect and record the following information:
 - a. the company identification of each mold release agent and photochemically reactive cleanup material employed;
 - b. the number of gallons of each mold release agent and photochemically reactive cleanup material employed;
 - c. the organic compound content of each mold release agent and photochemically reactive cleanup material employed, in pounds per gallon;
 - d. the total daily organic compound emission rate for all mold release agents and photochemically reactive cleanup materials employed in this emissions unit, in pounds per day;
 - e. the total number of hours this emissions unit was in operation using liquid organic materials; and
 - f. the average hourly organic compound emission rate, i.e., d./e., in pounds per hour (average).

[Note: The mold release agent information must be for the material as employed, including any thinning solvents added at the emissions unit. Also, the definitions of



"liquid organic material" and "photochemically reactive material" are based upon OAC rule 3745-21-01(C).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - b. an identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - c. an identification of each day during which the organic compound emissions exceeded 40 pounds day, and the actual organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:
 - a. Emission Limitation:
20% opacity as a 3-minute average

Applicable Compliance Method:

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)



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

b. Emission Limitation:

41 pounds per hour of sulfur dioxide

Applicable Compliance Method:

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

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

c. Emission Limitation:

8 pounds per hour and 40 pounds per day of organic materials

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d)(2). Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

(1) None.



8. F009, E-1 Forming line

Operations, Property and/or Equipment Description:

Glass forming line E-1 and annealing lehr

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 operations(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. 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
glass forming line E-1 and annealing lehr with no controls		
a.	OAC rule 3745-17-07(B)(1)	see b)(2)a.
b.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)b.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide shall not exceed 45 pounds per hour; and
		see b)(2)c.
d.	OAC rule 3745-21-07(G)(2)	emissions of organic materials shall not exceed 8 pounds per hour and 40 pounds per day
e.	OAC rule 3745-21-07(G)(9)(f)	exemption, see b)(2)d.

(2) Additional Terms and Conditions

a. Visible particulate emissions shall not exceed 20% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.

b. It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

c. The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation.



- d. The provisions of OAC rule 3745-21-07(G)(2) shall not apply on any day during which the emissions of organic materials into the atmosphere are not photochemically reactive.
 - e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in d)(2), e)(1), and f)(1)c) shall be void.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
 - (2) For each day that a photochemically reactive material (i.e., mold release agent and/or cleanup material) is employed in this emissions unit, the permittee shall collect and record the following information:
 - a. the company identification of each mold release agent and photochemically reactive cleanup material employed;
 - b. the number of gallons of each mold release agent and photochemically reactive cleanup material employed;
 - c. the organic compound content of each mold release agent and photochemically reactive cleanup material employed, in pounds per gallon;
 - d. the total daily organic compound emission rate for all mold release agents and photochemically reactive cleanup materials employed in this emissions unit, in pounds per day;
 - e. the total number of hours this emissions unit was in operation using liquid organic materials; and
 - f. the average hourly organic compound emission rate, i.e., d./e., in pounds per hour (average).

[Note: The mold release agent information must be for the material as employed, including any thinning solvents added at the emissions unit. Also, the definitions of



"liquid organic material" and "photochemically reactive material" are based upon OAC rule 3745-21-01(C).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - b. an identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - c. an identification of each day during which the organic compound emissions exceeded 40 pounds day, and the actual organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:
 - a. Emission Limitation:
20% opacity as a 3-minute average

Applicable Compliance Method:

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)



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

b. Emission Limitation:

45 pounds per hour of sulfur dioxide

Applicable Compliance Method:

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

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

c. Emission Limitation:

8 pounds per hour and 40 pounds per day of organic materials

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d)(2). Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

(1) None.



9. F010, F-1 Forming line

Operations, Property and/or Equipment Description:

Glass forming line F-1 and annealing Lehr

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 operations(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. 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
	glass forming line F-1 and annealing Lehr with no controls	
a.	OAC rule 3745-17-07(B)(1)	see b)(2)a.
b.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)b.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide shall not exceed 41 pounds per hour; and
		see b)(2)c.
d.	OAC rule 3745-21-07(G)(2)	emissions of organic materials shall not exceed 8 pounds per hour and 40 pounds per day
e.	OAC rule 3745-21-07(G)(9)(f)	exemption, see b)(2)d.

(2) Additional Terms and Conditions

a. Visible particulate emissions shall not exceed 20% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.

b. It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

c. The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation.



- d. The provisions of OAC rule 3745-21-07(G)(2) shall not apply on any day during which the emissions of organic materials into the atmosphere are not photochemically reactive.
 - e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in d)(2), e)(1), and f)(1)c) shall be void.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
 - (2) For each day that a photochemically reactive material (i.e., mold release agent and/or cleanup material) is employed in this emissions unit, the permittee shall collect and record the following information:
 - a. the company identification of each mold release agent and photochemically reactive cleanup material employed;
 - b. the number of gallons of each mold release agent and photochemically reactive cleanup material employed;
 - c. the organic compound content of each mold release agent and photochemically reactive cleanup material employed, in pounds per gallon;
 - d. the total daily organic compound emission rate for all mold release agents and photochemically reactive cleanup materials employed in this emissions unit, in pounds per day;
 - e. the total number of hours this emissions unit was in operation using liquid organic materials; and
 - f. the average hourly organic compound emission rate, i.e., d./e., in pounds per hour (average).

[Note: The mold release agent information must be for the material as employed, including any thinning solvents added at the emissions unit. Also, the definitions of



"liquid organic material" and "photochemically reactive material" are based upon OAC rule 3745-21-01(C).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - b. an identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - c. an identification of each day during which the organic compound emissions exceeded 40 pounds day, and the actual organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:
 - a. Emission Limitation:
20% opacity as a 3-minute average

Applicable Compliance Method:

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)



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

b. Emission Limitation:

41 pounds per hour of sulfur dioxide

Applicable Compliance Method:

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

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

c. Emission Limitation:

8 pounds per hour and 40 pounds per day of organic materials

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d)(2). Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

(1) None.



10. F011, D-2 Forming line

Operations, Property and/or Equipment Description:

Glass forming line D-2 and annealing lehr

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 operations(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. 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
glass forming line D-2 and annealing lehr with no controls		
a.	OAC rule 3745-17-07(B)(1)	see b)(2)a.
b.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)b.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide shall not exceed 47 pounds per hour; and
		see b)(2)c.
d.	OAC rule 3745-21-07(G)(2)	emissions of organic materials shall not exceed 8 pounds per hour and 40 pounds per day
e.	OAC rule 3745-21-07(G)(9)(f)	exemption, see b)(2)d.

(2) Additional Terms and Conditions

a. Visible particulate emissions shall not exceed 20% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.

b. It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

c. The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation.



- d. The provisions of OAC rule 3745-21-07(G)(2) shall not apply on any day during which the emissions of organic materials into the atmosphere are not photochemically reactive.
 - e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in d)(2), e)(1), and f)(1)c) shall be void.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
 - (2) For each day that a photochemically reactive material (i.e., mold release agent and/or cleanup material) is employed in this emissions unit, the permittee shall collect and record the following information:
 - a. the company identification of each mold release agent and photochemically reactive cleanup material employed;
 - b. the number of gallons of each mold release agent and photochemically reactive cleanup material employed;
 - c. the organic compound content of each mold release agent and photochemically reactive cleanup material employed, in pounds per gallon;
 - d. the total daily organic compound emission rate for all mold release agents and photochemically reactive cleanup materials employed in this emissions unit, in pounds per day;
 - e. the total number of hours this emissions unit was in operation using liquid organic materials; and
 - f. the average hourly organic compound emission rate, i.e., d./e., in pounds per hour (average).

[Note: The mold release agent information must be for the material as employed, including any thinning solvents added at the emissions unit. Also, the definitions of



"liquid organic material" and "photochemically reactive material" are based upon OAC rule 3745-21-01(C).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - b. an identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - c. an identification of each day during which the organic compound emissions exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:
 - a. Emission Limitation:
20% opacity as a 3-minute average

Applicable Compliance Method:

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)



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

b. Emission Limitation:

47 pounds per hour of sulfur dioxide

Applicable Compliance Method:

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

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

c. Emission Limitation:

8 pounds per hour and 40 pounds per day of organic materials

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d)(2). Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

(1) None.



11. F012, G-2 Forming line

Operations, Property and/or Equipment Description:

Glass forming line G-2 and annealing lehr

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 operations(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. 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
glass forming line G-2 and annealing lehr with no controls		
a.	OAC rule 3745-17-07(B)(1)	see b)(2)a.
b.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)b.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide shall not exceed 32 pounds per hour; and
		see b)(2)c.
d.	OAC rule 3745-21-07(G)(2)	emissions of organic materials shall not exceed 8 pounds per hour and 40 pounds per day
e.	OAC rule 3745-21-07(G)(9)(f)	exemption, see b)(2)d.

(2) Additional Terms and Conditions

a. Visible particulate emissions shall not exceed 20% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.

b. It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

c. The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation.



- d. The provisions of OAC rule 3745-21-07(G)(2) shall not apply on any day during which the emissions of organic materials into the atmosphere are not photochemically reactive.
 - e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in d)(2), e)(1), and f)(1)c) shall be void.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
 - (2) For each day that a photochemically reactive material (i.e., mold release agent and/or cleanup material) is employed in this emissions unit, the permittee shall collect and record the following information:
 - a. the company identification of each mold release agent and photochemically reactive cleanup material employed;
 - b. the number of gallons of each mold release agent and photochemically reactive cleanup material employed;
 - c. the organic compound content of each mold release agent and photochemically reactive cleanup material employed, in pounds per gallon;
 - d. the total daily organic compound emission rate for all mold release agents and photochemically reactive cleanup materials employed in this emissions unit, in pounds per day;
 - e. the total number of hours this emissions unit was in operation using liquid organic materials; and
 - f. the average hourly organic compound emission rate, i.e., d./e., in pounds per hour (average).

[Note: The mold release agent information must be for the material as employed, including any thinning solvents added at the emissions unit. Also, the definitions of



"liquid organic material" and "photochemically reactive material" are based upon OAC rule 3745-21-01(C).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - b. an identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - c. an identification of each day during which the organic compound emissions exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:
 - a. Emission Limitation:
20% opacity as a 3-minute average

Applicable Compliance Method:

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)



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

b. Emission Limitation:

32 pounds per hour of sulfur dioxide

Applicable Compliance Method:

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

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

c. Emission Limitation:

8 pounds per hour and 40 pounds per day of organic materials

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d)(2). Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

(1) None.



12. F013, G-3 Forming line

Operations, Property and/or Equipment Description:

Glass forming line G-3 and annealing lehr

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 operations(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. 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
glass forming line G-3 and annealing lehr with no controls		
a.	OAC rule 3745-17-07(B)(1)	see b)(2)a.
b.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)b.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide shall not exceed 33 pounds per hour; and
		see b)(2)c.
d.	OAC rule 3745-21-07(G)(2)	emissions of organic materials shall not exceed 8 pounds per hour and 40 pounds per day
e.	OAC rule 3745-21-07(G)(9)(f)	exemption, see b)(2)d.

(2) Additional Terms and Conditions

a. Visible particulate emissions shall not exceed 20% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.

b. It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

c. The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation.



- d. The provisions of OAC rule 3745-21-07(G)(2) shall not apply on any day during which the emissions of organic materials into the atmosphere are not photochemically reactive.
 - e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in d)(2), e)(1), and f)(1)c) shall be void.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
 - (2) For each day that a photochemically reactive material (i.e., mold release agent and/or cleanup material) is employed in this emissions unit, the permittee shall collect and record the following information:
 - a. the company identification of each mold release agent and photochemically reactive cleanup material employed;
 - b. the number of gallons of each mold release agent and photochemically reactive cleanup material employed;
 - c. the organic compound content of each mold release agent and photochemically reactive cleanup material employed, in pounds per gallon;
 - d. the total daily organic compound emission rate for all mold release agents and photochemically reactive cleanup materials employed in this emissions unit, in pounds per day;
 - e. the total number of hours this emissions unit was in operation using liquid organic materials; and
 - f. the average hourly organic compound emission rate, i.e., d./e., in pounds per hour (average).

[Note: The mold release agent information must be for the material as employed, including any thinning solvents added at the emissions unit. Also, the definitions of



"liquid organic material" and "photochemically reactive material" are based upon OAC rule 3745-21-01(C).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - b. an identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - c. an identification of each day during which the organic compound emissions exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:
 - a. Emission Limitation:
20% opacity as a 3-minute average

Applicable Compliance Method:

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)



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

b. Emission Limitation:

33 pounds per hour of sulfur dioxide

Applicable Compliance Method:

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

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

c. Emission Limitation:

8 pounds per hour and 40 pounds per day of organic materials

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d)(2). Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

(1) None.



13. F014, G-6 Forming line

Operations, Property and/or Equipment Description:

Glass forming line G-6 and annealing lehr

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 operations(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. 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
glass forming line G-6 and annealing lehr with no controls		
a.	OAC rule 3745-17-07(B)(1)	see b)(2)a.
b.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)b.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide shall not exceed 41 pounds per hour; and
		see b)(2)c.
d.	OAC rule 3745-21-07(G)(2)	emissions of organic materials shall not exceed 8 pounds per hour and 40 pounds per day
e.	OAC rule 3745-21-07(G)(9)(f)	exemption, see b)(2)d.

(2) Additional Terms and Conditions

a. Visible particulate emissions shall not exceed 20% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.

b. It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

c. The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation.



- d. The provisions of OAC rule 3745-21-07(G)(2) shall not apply on any day during which the emissions of organic materials into the atmosphere are not photochemically reactive.
 - e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in d)(2), e)(1), and f)(1)c) shall be void.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
 - (2) For each day that a photochemically reactive material (i.e., mold release agent and/or cleanup material) is employed in this emissions unit, the permittee shall collect and record the following information:
 - a. the company identification of each mold release agent and photochemically reactive cleanup material employed;
 - b. the number of gallons of each mold release agent and photochemically reactive cleanup material employed;
 - c. the organic compound content of each mold release agent and photochemically reactive cleanup material employed, in pounds per gallon;
 - d. the total daily organic compound emission rate for all mold release agents and photochemically reactive cleanup materials employed in this emissions unit, in pounds per day;
 - e. the total number of hours this emissions unit was in operation using liquid organic materials; and
 - f. the average hourly organic compound emission rate, i.e., d./e., in pounds per hour (average).

[Note: The mold release agent information must be for the material as employed, including any thinning solvents added at the emissions unit. Also, the definitions of



"liquid organic material" and "photochemically reactive material" are based upon OAC rule 3745-21-01(C).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - b. an identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - c. an identification of each day during which the organic compound emissions exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:
 - a. Emission Limitation:
20% opacity as a 3-minute average

Applicable Compliance Method:

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)



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

b. Emission Limitation:

41 pounds per hour of sulfur dioxide

Applicable Compliance Method:

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

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

c. Emission Limitation:

8 pounds per hour and 40 pounds per day of organic materials

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d)(2). Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

(1) None.



14. F015, G-5 Forming line

Operations, Property and/or Equipment Description:

Glass forming line G-5 and annealing lehr

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 operations(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. 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
glass forming line G-5 and annealing lehr with no controls		
a.	OAC rule 3745-17-07(B)(1)	see b)(2)a.
b.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)b.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide shall not exceed 47 pounds per hour; and
		see b)(2)c.
d.	OAC rule 3745-21-07(G)(2)	emissions of organic materials shall not exceed 8 pounds per hour and 40 pounds per day
e.	OAC rule 3745-21-07(G)(9)(f)	exemption, see b)(2)d.

(2) Additional Terms and Conditions

a. Visible particulate emissions shall not exceed 20% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.

b. It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

c. The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation.



- d. The provisions of OAC rule 3745-21-07(G)(2) shall not apply on any day during which the emissions of organic materials into the atmosphere are not photochemically reactive.
 - e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in d)(2), e)(1), and f)(1)c) shall be void.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.
[Authority for term: OAC rule 3745-77-07(A)(1)]
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
 - (2) For each day that a photochemically reactive material (i.e., mold release agent and/or cleanup material) is employed in this emissions unit, the permittee shall collect and record the following information:
 - a. the company identification of each mold release agent and photochemically reactive cleanup material employed;
 - b. the number of gallons of each mold release agent and photochemically reactive cleanup material employed;
 - c. the organic compound content of each mold release agent and photochemically reactive cleanup material employed, in pounds per gallon;
 - d. the total daily organic compound emission rate for all mold release agents and photochemically reactive cleanup materials employed in this emissions unit, in pounds per day;
 - e. the total number of hours this emissions unit was in operation using liquid organic materials; and
 - f. the average hourly organic compound emission rate, i.e., d./e., in pounds per hour (average).

[Note: The mold release agent information must be for the material as employed, including any thinning solvents added at the emissions unit. Also, the definitions of



"liquid organic material" and "photochemically reactive material" are based upon OAC rule 3745-21-01(C).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
 - a. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - b. an identification of each day during which the average hourly organic compound emissions exceeded 8 pounds per hour, and the actual average hourly organic compound emissions for each such day; and
 - c. an identification of each day during which the organic compound emissions exceeded 40 pounds per day, and the actual organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:
 - a. Emission Limitation:
20% opacity as a 3-minute average



Applicable Compliance Method:

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)

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

b. Emission Limitation:

47 pounds per hour of sulfur dioxide

Applicable Compliance Method:

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

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

c. Emission Limitation:

8 pounds per hour and 40 pounds per day of organic materials

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d)(2). Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

- (1) None.



15. F018, Roadways and parking lots

Operations, Property and/or Equipment Description:

Plant roadways, parking lots and loading areas

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 operations(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. 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
paved roadways and parking areas (see b)(2)a.)		
a.	OAC rule 3745-17-07 (B)(4)	no visible particulate emissions except for 6 minutes during any 60-minute period
b.	OAC rule 3745-17-08 (B), (B)(8), (B)(9)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see b)(2)c., and b)(2)e. through b)(2)i.)
unpaved roadways and parking areas (see b)(2)b.)		
a.	OAC rule 3745-17-07 (B)(5)	no visible particulate emissions except for 13 minutes during any 60-minute period
b.	OAC rule 3745-17-08 (B), (B)(2)	reasonably available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see b)(2)d. through b)(2)i.)

(2) Additional Terms and Conditions

a. The paved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

- Ash Street office parking
- Ash Street entrance
- Ash Street lower lot



Ash Street upper lot
batch unloading
Buckeye Street pad
Buckeye Street parking lot
cullet yard
DC loading docks
NFC parking lot

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

- b. The unpaved roadways and parking areas that are covered by this permit and subject to the requirements of OAC rules 3745-17-07 and 3745-17-08 are listed below:

DC Int plant docks
Inland storage
security road
service drive actyl
trailer field

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

- c. The permittee shall employ reasonably available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by sweeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- d. The permittee shall employ reasonably available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved roadways and parking areas with a suitable dust suppression chemicals or by the reapplication of aggregate at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- e. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.



- f. Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.
- g. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- h. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- i. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-17-08.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform inspections of the roadways and parking areas in accordance with the following minimum frequencies:
 - a. weekly for paved roadways and parking areas; and
 - b. daily for unpaved roadways and parking areas.

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

- (2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.

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

- (3) 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.

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

(4) The permittee shall maintain records of the following information:

- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
- b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
- c. the dates the control measures were implemented; and
- d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in (4)d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

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

e) Reporting Requirements

(1) The permittee shall submit deviation reports that identify any of the following occurrences:

- a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
- b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.

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

(2) The deviation reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Proposed Title V Permit

Permit Number: P0088082

Facility ID: 0448010066

Effective Date: To be entered upon final issuance

f) Testing Requirements

- (1) Compliance with the emission limitation for the paved and unpaved roadways and parking areas identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

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

g) Miscellaneous Requirements

- (1) None.



16. F019, G-4 Forming line

Operations, Property and/or Equipment Description:

Glass forming line G-4 and annealing lehr

- 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 operations(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. 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
glass forming line G-4 and annealing lehr with no controls		
a.	OAC rule 3745-31-05(A)(3) established by PTI 04-01376 as issued 9/30/2004	emissions of carbon monoxide (CO) shall not exceed 2.64 pounds per hour and 11.56 tons per year;
		emissions of nitrogen oxides (NOx) shall not exceed 0.46 pound per hour and 2.02 tons per year;
		particulate emissions (PE) shall not exceed 0.18 pound per hour and 0.79 ton per year;
		emissions of particulate matter less than 10 micron in diameter (PM10) shall not exceed 0.19 pound per hour and 0.83 ton per year,
		emissions of sulfur dioxide (SO2) shall not exceed 0.023 pound per hour and 0.1 ton per year;
		emissions of volatile organic compounds (VOC) shall not exceed 0.87 pound per hour and 3.81 tons per year; and
		see b)(2)a. and b)(2)b.
b.	OAC rule 3745-17-07(B)(1)	see b)(2)c.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)c.
d.	OAC rule 3745-18-06(E)(2)	see b)(2)c.
e.	OAC rule 3745-21-07(G)(9)(f)	exemption for the use of non-photochemically reactive materials
f.	OAC rule 3745-21-08(B)	see b)(2)d.

(2) Additional Terms and Conditions

- a. Visible particulate emissions shall not exceed 5% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.
- b. The hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.
- 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 has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established in PTI No. 04-01376. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in c)(2), d)(3), and e)(3) shall be void.



c) Operational Restrictions

- (1) The permittee shall burn only acetylene, natural gas and/or propane as fuel in this emissions unit.

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

- (2) The use of photochemically reactive mold release agent in this emissions unit is prohibited.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than acetylene, natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive 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 location and 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.

If the daily checks show no visible emissions 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 by the permittee or an Ohio EPA inspector indicates visible emissions, the frequency of emissions checks shall revert to daily until such time as there are 30 consecutive operating days of no visible emissions.

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

- (3) The permittee shall collect and record the following information each month for this emissions unit.



- a. the company identification of each mold release agent employed;
- b. whether or not the mold release agent is a photochemically reactive material as defined under OAC rule 3745-21-01(C)(5);
- c. the number of gallons (or quantity), minus water, of each mold release agent employed;
- d. the organic compound content in pounds per gallon, excluding water of each mold release agent employed; and
- e. the total organic compound emission rate from all of the mold release agents c. x d. 2000, in tons per month.
- f. the total volume of acetylene burned in this emission unit.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day photochemically reactive mold release agent was used. The notification shall include a copy of such record and shall be sent to the Toledo Division of Environmental Services within 30 days after the deviation occurs.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, propane, and/or acetylene was burned in this emissions unit as fuel. Each report shall be submitted within 30 days after the deviation occurs.

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

- (3) The permittee shall submit quarterly deviation (excursion) reports which include the following information:
 - a. an identification of each day photochemically reactive mold release agent was used;
 - b. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - c. an identification of all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and



- d. describe any corrective actions taken to eliminate the visible fugitive particulate emissions.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (4) The quarterly deviation reports shall be submitted by by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:

- a. Emission Limitation:

5% opacity as a 3-minute average

Applicable Compliance Method:

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).

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

- b. Emission Limitation:

2.64 pounds per hour CO emissions

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the CO emission factor from Table 1.4-1 of AP-42 Section 1.4 dated 7/1998 (84 lb/mmscf) by the maximum natural gas firing rate of 2,865 ft³/hr. Add to this the product of the CO emission factor from AP-42 Section 5.3 for Channel Black Production dated 4/1977 (33,500 lbs/ton) and the estimated yield of carbon product produced based on 5% yield from 0.066 mmBtu/hr of acetylene combusted (7.17E -5 ton C/hr).

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 10 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.



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

c. Emission Limitation:

11.56 tons per year CO emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly CO limit constitutes compliance with the annual CO limit.

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

d. Emission Limitation:

0.18 pound per hour PE

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the PE emission factor from Table 1.5-1 of AP-42 Section 1.4 dated 7/1998 for a maximum propane sulfur concentration of 123 ppm (0.00437 lb/mmBtu) by the maximum propane firing rate (2.92 mmBtu/hr). Add to this the product of the PE emission factor from AP-42 Section 5.3 for Channel Black Production dated 4/1977 (2,300 lbs/ton) and the estimated yield of carbon product produced based on 5% yield from 0.066 mmBtu/hr of acetylene combusted (7.17E -5 ton C/hr).

If required, the permittee shall demonstrate compliance using Method 5 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

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

e. Emission Limitation:

0.79 ton per year PE

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

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

f. Emission Limitation:

0.19 pound per hour PM10



Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the PM10 emission factor from Table 1.4-2 of AP-42 Section 1.4 dated 7/1998 (7.6 lb/mm scf) by the maximum natural gas firing rate of 2,865 ft³/hr. Add to this the product of the PE (assume all PE is PM10) emission factor from AP-42 Section 5.3 for Channel Black Production dated 4/1977 (2,300 lbs/ton) and the estimated yield of carbon product produced based on 5% yield from 0.066 mmBtu/hr of acetylene combusted (7.17E -5 ton C/hr).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

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

g. Emission Limitation:

0.83 ton per year PM10

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

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

h. Emission Limitation:

0.46 pound per hour NOx emissions

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the AP-42 NOx emission factor from Table 1.5-1 dated 10/1996 (0.153 lb/mmBtu) by the maximum propane firing rate of 2.92 mmBtu/hr. Multiply the NOx permittee supplied emission factor of (130 lb/mm scf) by the maximum acetylene firing rate of 45 ft³/hr and the ratio of the heating value of acetylene to natural gas (1,470 Btu/scf / 1,020 Btu/scf), and add to this the NOx emissions from propane combustion.

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

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

i. Emission Limitation:

2.02 tons per year NOx emissions



Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly NOx limit constitutes compliance with the annual NOx limit.

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

j. Emission Limitation:

0.023 pound per hour SO2 emissions

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the SO2 emission factor from Table 1.5-1 of AP-42 Section 1.4 dated 7/1998 for a maximum propane sulfur concentration of 123 ppm (0.0078 lb/mmBtu) by the maximum propane firing rate (2.92 mmBtu/hr).

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 6C of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

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

k. Emission Limitation:

0.1 ton per year SO2 emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly emission limitation constitutes compliance with the annual SO2 emission limitation.

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

l. Emission Limitation:

0.87 pound per hour VOC emissions

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the VOC emission factor from Table 1.4-2 of AP-42 Section 1.4 dated 7/1998 (5.5 lb/mmscf) by the maximum natural gas firing rate of 2,865 ft3/hr. Add to this the product of the VOC emission factor from AP-42 Section 5.3 for Channel Black Production dated 4/1977 (11,500 lbs/ton) and the estimated yield of carbon product produced based on 5% yield from 0.066 mmBtu/hr of acetylene combusted (7.17E -5 ton C/hr). Add to this the maximum application



rate of mold release agent 0.027 lb/hr (assuming a worst case VOC content of 100%).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

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

m. Emission Limitation:

3.81 tons per year VOC emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Compliance with the hourly VOC emissions limit constitutes compliance with the annual limit.

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

g) Miscellaneous Requirements

(1) None.



17. F020, D-1 Forming line

Operations, Property and/or Equipment Description:

Glass forming line D-1 and annealing lehr

- 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 operations(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. 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
glass forming line D-1 and annealing lehr with no controls		
a.	OAC rule 3745-31-05(A)(3) established by PTI 04-01376 as issued 9/30/2004	emissions of carbon monoxide (CO) shall not exceed 2.75 pounds per hour and 12.0 tons per year;
		emissions of nitrogen oxides (NOx) shall not exceed 0.66 pound per hour and 2.9 tons per year;
		particulate emissions (PE) shall not exceed 0.18 pound per hour and 0.79 ton per year;
		emissions of particulate matter less than 10 micron in diameter (PM10) shall not exceed 0.20 pound per hour and 0.86 ton per year,
		emissions of sulfur dioxide (SO2) shall not exceed 0.033 pound per hour and 0.14 ton per year;
		emissions of volatile organic compounds (VOC) shall not exceed 0.87 pound per hour and 3.8 tons per year; and
		see b)(2)a. and b)(2)b.
b.	OAC rule 3745-17-07(B)(1)	see b)(2)c.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-08(B), (B)(3)	see b)(2)c.
d.	OAC rule 3745-18-06(E)(2)	see b)(2)c.
e.	OAC rule 3745-21-07(G)(9)(f)	exemption for the use of non-photochemically reactive materials
f.	OAC rule 3745-21-08(B)	see b)(2)d.

(2) Additional Terms and Conditions

- a. Visible particulate emissions shall not exceed 5% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.
- b. The hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.
- 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 has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established in PTI No. 04-01376. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- e. Any emission limits or operational restrictions within this permit pertaining to photochemically reactive materials shall cease to be effective and federally enforceable on the date the U.S. EPA approves the revisions to OAC rule 3745-21-07(G) as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, the emission limitations, monitoring, record keeping, reporting and testing requirements related to the restriction of the use of photochemically reactive materials included in c)(2), d)(3), and e)(3) shall be void.



c) Operational Restrictions

- (1) The permittee shall burn only acetylene, natural gas and/or propane as fuel in this emissions unit.

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

- (2) The use of photochemically reactive mold release agent in this emissions unit is prohibited.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than acetylene, natural gas and/or propane, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive 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 location and 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.

If the daily checks show no visible emissions 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 by the permittee or an Ohio EPA inspector indicates visible emissions, the frequency of emissions checks shall revert to daily until such time as there are 30 consecutive operating days of no visible emissions.

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

- (3) The permittee shall collect and record the following information each month for this emissions unit.



- a. the company identification of each mold release agent employed;
- b. whether or not the mold release agent is a photochemically reactive material as defined under OAC rule 3745-21-01(C)(5);
- c. the number of gallons (or quantity), minus water, of each mold release agent employed;
- d. the organic compound content in pounds per gallon, excluding water of each mold release agent employed; and
- e. the total organic compound emission rate from all of the mold release agents c. x d. 2000, in tons per month.
- f. the total volume of acetylene burned in this emission unit.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds..

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

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day photochemically reactive mold release agent was used. The notification shall include a copy of such record and shall be sent to the Toledo Division of Environmental Services within 30 days after the deviation occurs.

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

- (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, propane, and/or acetylene was burned in this emissions unit as fuel. Each report shall be submitted within 30 days after the deviation occurs.

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

- (3) The permittee shall submit quarterly deviation (excursion) reports which include the following information:
 - a. an identification of each day photochemically reactive mold release agent was used;
 - b. an identification of each day when a fuel other than natural gas and/or propane was burned in this emissions unit;
 - c. an identification of all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit; and
 - d. describe any corrective actions taken to eliminate the visible fugitive particulate emissions.



The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

- (4) The quarterly deviation reports shall be submitted by by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:

- a. Emission Limitation:

5% opacity as a 3-minute average

Applicable Compliance Method:

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

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

- b. Emission Limitation:

2.75 pound per hour CO emissions

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the CO emission factor from Table 1.4-1 of AP-42 Section 1.4 dated 7/1998 (84 lb/mmscf) by the maximum natural gas firing rate of 4,179 ft³/hr. Add to this the product of the CO emission factor from AP-42 Section 5.3 for Channel Black Production dated 4/1977 (33,500 lbs/ton) and the estimated yield of carbon product produced based on 5% yield from 0.066 mmBtu/hr of acetylene combusted (7.17E-5 ton C/hr).

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 10 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

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



c. Emission Limitation:

12.0 tons per year CO emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds per ton. Therefore, compliance with the hourly CO limit constitutes compliance with the annual CO limit.

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

d. Emission Limitation:

0.18 pound per hour PE

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the PE emission factor from Table 1.5-1 of AP-42 Section 1.4 dated 7/1998 for a maximum propane sulfur concentration of 123 ppm (0.00437 lb/mmBtu) by the maximum propane firing rate (4.263 mmBtu/hr). Add to this the product of the PE emission factor from AP-42 Section 5.3 for Channel Black Production dated 4/1977 (2,300 lbs/ton) and the estimated yield of carbon product produced based on 5% yield from 0.066 mmBtu/hr of acetylene combusted (7.17E-5 ton C/hr).

If required, the permittee shall demonstrate compliance using Method 5 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

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

e. Emission Limitation:

0.79 ton per year PE

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds per ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

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

f. Emission Limitation:

0.20 pound per hour PM10



Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the PM10 emission factor from Table 1.4-2 of AP-42 Section 1.4 dated 7/1998 (7.6 lb/mmscf) by the maximum natural gas firing rate of 4,179 ft³/hr. Add to this the product of the PE (assume all PE is PM10) emission factor from AP-42 Section 5.3 for Channel Black Production dated 4/1977 (2,300 lbs/ton) and the estimated yield of carbon product produced based on 5% yield from 0.066 mmBtu/hr of acetylene combusted (7.17E-5 ton C/hr).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

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

g. Emission Limitation:

0.86 ton per year PM10

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds per ton. Therefore, compliance with the hourly particulate emission limit constitutes compliance with the annual particulate emission limit.

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

h. Emission Limitation:

0.66 pounds per hour NOx emissions

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the AP-42 NOx emission factor from Table 1.5-1 dated 10/1996 (0.153 lb/mmBtu) by the maximum propane firing rate of 4.263 mmBtu/hr. Multiply the NOx permittee supplied emission factor of (130 lb/mmscf) by the maximum acetylene firing rate of 45 ft³/hr and the ratio of the heating value of acetylene to natural gas (1,470 Btu/scf 1,020 Btu/scf), and add to this the NOx emissions from propane combustion.

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

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

i. Emission Limitation:

2.9 tons per year NOx emissions



Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds per ton. Therefore, compliance with the hourly NOx limit constitutes compliance with the annual NOx limit.

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

j. Emission Limitation:

0.033 pound per hour SO₂ emissions

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the SO₂ emission factor from Table 1.5-1 of AP-42 Section 1.4 dated 7/1998 for a maximum propane sulfur concentration of 123 ppm (0.0078 lb/mmBtu) by the maximum propane firing rate (4.263 mmBtu/hr).

If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 6C of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

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

k. Emission Limitation:

0.14 ton year SO₂ emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds per ton. Therefore, compliance with the hourly emission limitation constitutes compliance with the annual SO₂ emission limitation.

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

l. Emission Limitation:

0.87 pounds per hour VOC emissions

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the VOC emission factor from Table 1.4-2 of AP-42 Section 1.4 dated 7/1998 (5.5 lb/mmscf) by the maximum natural gas firing rate of 4,179 ft³/hr. Add to this the product of the VOC emission factor from AP-42 Section 5.3 for Channel Black Production dated 4/1977 (11,500 lbs/ton) and the estimated yield of carbon product produced based on 5% yield from 0.066 mmBtu/hr of acetylene combusted (7.17E-5 ton C/hr). Add to this the maximum application



rate of mold release agent 0.027 lb/hr (assuming a worst case VOC content of 100%).

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

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

m. Emission Limitation:

3.8 tons per year VOC emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds per ton. Compliance with the hourly VOC emissions limit constitutes compliance with the annual limit.

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

g) Miscellaneous Requirements

(1) None.



18. P003, B - Furnace

Operations, Property and/or Equipment Description:

Glass melting furnace - 'B'

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 operations(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. 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
glass melting furnace "B" with no controls		
a.	OAC rule 3745-17-07(A)(1)	see b)(2)a. below
b.	OAC rule 3745-17-11(B)(1)	particulate emissions (PE) shall not exceed 8.8 pounds per hour; and see g)(1) below.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide (SO2) shall not exceed 64.4 pounds per hour

(2) Additional Terms and Conditions

a. Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except:

i. visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes; but

ii. shall not exceed 60 percent opacity, as a six-minute average, at any time; and

iii. the presence of uncombined water shall not be deemed a violation for failure of stack emissions meeting this requirement.



c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) 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 stack 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 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.

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

- (2) The permittee shall maintain daily records of the following:

- a. the tons of glass produced in this emissions unit, and
- b. the hours of operation of this emissions unit.

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions.

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



- (2) The quarterly deviation reports shall be submitted by by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:

- a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

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

- b. Emission Limitation:

8.8 pounds per hour of particulates

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the AP-42 (Table 11.15-1, 1/95 Edition) particulate emission factor of 1.4 pounds of particulates per ton of glass produced by the daily average production rate of glass, in tons per hour, established through the record keeping requirements of d)(2).

If required, the permittee shall perform emission testing in accordance with Method 5 of 40 CFR Part 60 Subpart A, and the procedures of OAC rule 3745-17-03(B)(10).

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

- c. Emission Limitation:

64.4 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the AP-42 (Table 11.15-1, 1/95 Edition) sulfur dioxide emission factor of 3.4 pounds of sulfur dioxide emissions per ton of glass produced by the daily



average production rate of glass, in tons per hour, established through the record keeping requirements of d)(2).

If required, the permittee shall perform emission testing in accordance with Method 6 of 40 CFR Part 60 Subpart A, and the procedures of OAC rule 3745-18-04(E)(1).

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

- (2) Within 180 days of the issuance of this permit, the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates and sulfur dioxide.
 - b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 and Method 6c of 40 CFR Part 60, Appendix A. Alternative USEPA approved test methods may be used with prior approval from the Ohio EPA.
 - c. The test(s) shall be conducted while combusting natural gas.
 - d. 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 exceeds 500 hours, the permittee shall immediately report the exceedance and at the earliest possible date perform additional test(s) while combusting fuel oil.
 - e. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where



warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

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

g) **Miscellaneous Requirements**

- (1) 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.

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



19. P005, D - Furnace

Operations, Property and/or Equipment Description:

Glass melting furnace - 'D'

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 operations(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. 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
glass melting furnace "D" with no controls		
a.	OAC rule 3745-17-07(A)(1)	see b)(2)a.
b.	OAC rule 3745-17-11(B)(1)	particulate emissions (PE) shall not exceed 8.4 pounds per hour; and see g)(1) below.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide (SO ₂) shall not exceed 61.5 pounds per hour

(2) Additional Terms and Conditions

a. Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except:

i. visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes; but

ii. shall not exceed 60 percent opacity, as a six-minute average, at any time; and

iii. the presence of uncombined water shall not be deemed a violation for failure of stack emissions meeting this requirement.



c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) 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 stack 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 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.

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

- (2) The permittee shall maintain daily records of the following:

- a. the tons of glass produced in this emissions unit, and
- b. the hours of operation of this emissions unit.

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions.

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



- (2) The quarterly deviation reports shall be submitted by by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:

- a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

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

- b. Emission Limitation:

8.4 pounds per hour of particulates

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the AP-42 (Table 11.15-1, 1/95 Edition) particulate emission factor of 1.4 pounds of particulates per ton of glass produced by the daily average production rate of glass, in tons per hour, established through the record keeping requirements of d)(2).

If required, the permittee shall perform emission testing in accordance with Method 5 of 40 CFR Part 60 Subpart A, and the procedures of OAC rule 3745-17-03(B)(10).

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

- c. Emission Limitation:

61.5 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the AP-42 (Table 11.15-1, 1/95 Edition) sulfur dioxide emission factor of 3.4 pounds of sulfur dioxide emissions per ton of glass produced by the daily



average production rate of glass, in tons per hour, established through the record keeping requirements of d)(2).

If required, the permittee shall perform emission testing in accordance with Method 6 of 40 CFR Part 60 Subpart A, and the procedures of OAC rule 3745-18-04(E)(1).

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

- (2) Within 180 days of the issuance of this permit, the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates and sulfur dioxide.
 - b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 and Method 6c of 40 CFR Part 60, Appendix A. Alternative USEPA approved test methods may be used with prior approval from the Ohio EPA.
 - c. The test(s) shall be conducted while combusting natural gas.
 - d. 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 exceeds 500 hours, the permittee shall immediately report the exceedance and at the earliest possible date perform additional test(s) while combusting fuel oil.
 - e. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where



warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

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

g) Miscellaneous Requirements

- (1) 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.

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



20. P006, E - Furnace

Operations, Property and/or Equipment Description:

Glass melting furnace - 'E'

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 operations(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. 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
glass melting furnace "E" with no controls		
a.	OAC rule 3745-17-07(A)(1)	see b)(2)a.
b.	OAC rule 3745-17-11(B)(1)	particulate emissions (PE) shall not exceed 8.4 pounds per hour; and see g)(1) below.
c.	OAC rule 3745-18-06(E)(2)	emissions of sulfur dioxide (SO ₂) shall not exceed 61.5 pounds per hour

(2) Additional Terms and Conditions

a. Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except:

i. visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes; but

ii. shall not exceed 60 percent opacity, as a six-minute average, at any time; and

iii. the presence of uncombined water shall not be deemed a violation for failure of stack emissions meeting this requirement.



c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) 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 stack 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 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.

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

- (2) The permittee shall maintain daily records of the following:

- a. the tons of glass produced in this emissions unit, and
- b. the hours of operation of this emissions unit.

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions.

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



- (2) The quarterly deviation reports shall be submitted by by January 31, April 30, July 31, and October 31 of each year and shall cover the previous 3 calendar months. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period. These reports shall be submitted to the Toledo Division of Environmental Services, 348 South Erie Street, Toledo, Ohio 43604.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:

- a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

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

- b. Emission Limitation:

8.4 pounds per hour of particulates

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the AP-42 (Table 11.15-1, 1/95 Edition) particulate emission factor of 1.4 pounds of particulates per ton of glass produced by the daily average production rate of glass, in tons per hour, established through the record keeping requirements of d)(2).

If required, the permittee shall perform emission testing in accordance with Method 5 of 40 CFR Part 60 Subpart A, and the procedures of OAC rule 3745-17-03(B)(10).

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

- c. Emission Limitation:

61.5 pounds per hour of sulfur dioxide

Applicable Compliance Method:

Compliance shall be demonstrated through calculations performed as follows: multiply the AP-42 (Table 11.15-1, 1/95 Edition) sulfur dioxide emission factor of 3.4 pounds of sulfur dioxide emissions per ton of glass produced by the daily



average production rate of glass, in tons per hour, established through the record keeping requirements of d)(2).

If required, the permittee shall perform emission testing in accordance with Method 6 of 40 CFR Part 60 Subpart A, and the procedures of OAC rule 3745-18-04(E)(1).

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

- (2) Within 180 days of the issuance of this permit, the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for particulates and sulfur dioxide.
 - b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 5 and Method 6c of 40 CFR Part 60, Appendix A. Alternative USEPA approved test methods may be used with prior approval from the Ohio EPA.
 - c. The test(s) shall be conducted while combusting natural gas.
 - d. 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 exceeds 500 hours, the permittee shall immediately report the exceedance and at the earliest possible date perform additional test(s) while combusting fuel oil.
 - e. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where



warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

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

g) Miscellaneous Requirements

- (1) 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.

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



21. P007, G - Furnace

Operations, Property and/or Equipment Description:

Glass melting furnace - 'G'

- 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 operations(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. 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
P007 - G-Furnace (27-G)		
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) as established in PTI 04-01414 as issued August 30, 2005 and modified June 13, 2008	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;



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		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.
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.
f.	OAC rule 3745-21-07(B)	See b)(2)d.
g.	OAC rule 3745-21-08(B)	See b)(2)e.
Refiner - natural gas fired at a maximum rate of 3,375 scf/hr with low-NOx burners		
a.	OAC rule 3745-31-05(A)(3) as established in PTI 04-01414 as issued August 30, 2005 and modified June 13, 2008	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 b)(2)f. and b)(2)g.
b.	OAC rule 3745-17-07(B)(1)	See b)(2)c.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-08(B)	See b)(2)h and b)(2)j.
d.	OAC rule 3745-18-06(E)(2)	See b)(2)c.
e.	OAC rule 3745-21-07(B)	See b)(2)d.
f.	OAC rule 3745-21-08(B)	See b)(2)e.
Forehearths - natural gas fired with standard burners (17,666 scf/hr) and low-NOx burners (5,148 scf/hr)		
a.	OAC rule 3745-31-05(A)(3) as established in PTI 04-01414 as issued August 30, 2005 and modified June 13, 2008	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
		see b)(2)f. and b)(2)g.
b.	OAC rule 3745-17-07(B)(1)	See b)(2)c.
c.	OAC rule 3745-17-08(B)	See b)(2)h. and b)(2) j.
d.	OAC rule 3745-18-06(E)(2)	See b)(2)c.
e.	OAC rule 3745-21-07(B)	See b)(2)d.
f.	OAC rule 3745-21-08(B)	See b)(2)e.



(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 any stack shall not exceed 20 percent opacity as a six-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 satisfy the "latest available control techniques and operating practices" required pursuant to OAC rules 3745-21-07(B) by complying with the best available technology requirements established in permit to install 04-01414.

On February 18, 2008, OAC rule 3745-21-07 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- e. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology (BAT) requirements established in PTI No. 04-01414. The design of the emissions unit and the technology associated with the current operating practices satisfy the BAT requirements.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- f. 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.
- g. 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.
- h. Compliance with this rule is achieved through the exclusive combustion of natural gas.



c) Operational Restrictions

- (1) The permittee shall burn only natural gas as fuel in this emissions unit.

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

- (2) 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.

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

d) Monitoring and/or Recordkeeping Requirements

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

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

- (2) 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.

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

- (3) The permittee shall maintain monthly records of the following information:

- a. the glass pull rate for each month, in tons; and
- b. the rolling, 12-month summation of the glass pull rates.

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

- (4) 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.

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

- (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 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.

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

- (6) 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.

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

- (7) 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.

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



e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Toledo Division of Environmental Services within 30 days after the deviation occurs.

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

- (2) 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 Toledo Division of Environmental Services) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

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

- (3) 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 Toledo Division of Environmental Services) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) 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).

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

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

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.

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

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 (6.11 pounds of NO_x emissions per ton of glass pulled as 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 7E of 40 CFR Part 60,



Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

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

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 (6.11 pounds of NO_x 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.

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

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.

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

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.

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



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.

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

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.

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

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 (2.47 pounds of SO₂ 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 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.

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



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 (2.47 pounds of SO₂ 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.

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

l. 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.

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

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.

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

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).

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

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/mmescf of natural gas burned) by the maximum natural gas firing rate of 3.375 E-3 mmescf/hr

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

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 is compliance is shown with the hourly emission limitation, compliance is also shown with the annual emission limitation.

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

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/mmescf of natural gas burned) by the maximum natural gas firing rate of 3.375 E-3 mmescf/hr

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

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.

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

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/mmcsf of natural gas burned) by the maximum natural gas firing rate (3.375 E-3 mmcsf/hr).

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

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/mmcsf of natural gas burned), by the maximum natural gas firing rate (3.375 E-3 mmcsf/hr), by the maximum annual operating hours (8760 hrs/yr) and dividing by 2000 pounds per ton.

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

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/mmcsf of natural gas burned) by the maximum natural gas firing rate (3,375 scf/hr).

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

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/mm scf of natural gas burned), by the maximum natural gas firing rate (3.375 E-3 mm scf/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.

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

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/mm scf of natural gas burned) by the maximum natural gas firing rate (3,375 scf/hr).

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

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/mm scf of natural gas burned), by the maximum natural gas firing rate (3.375 E-3 mm scf/hr), by the maximum annual operating hours (8760 hrs/yr) and dividing by 2000 pounds per ton.

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

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/mm scf of natural gas burned) by the maximum natural gas firing rate (3,375 scf/hr).

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



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-3 mmscf/hr), by the maximum annual operating hours (8760 hrs/yr) and dividing by 2000 pounds per ton.

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

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).

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

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.

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

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).

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

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.

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

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).

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

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.

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

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).

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

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.

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

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).

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

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/mmescf of natural gas burned) by the maximum natural gas firing rate (0.022814 mmescf/hr).

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

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.

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

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).

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

(2) Emission testing requirements

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted approximately 2.5 years after permit issuance and within 6 months prior to permit renewal.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for NOx and SO2 from the glass melting furnace stack.



- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

NOx: Methods 1-4 and 7E of 40 CFR Part 60, Appendix A

SO2: Methods 1-4 and 6C of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- d. During the testing, the permittee shall record the following operational parameters for each test run: glass pull rate in tons/hr, the melting furnace natural gas firing rate in scf/hr, and the electric boost rate.
- e. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Toledo Division of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services's refusal to accept the results of the emission test(s).

Personnel from the Toledo Division of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Toledo Division of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Toledo Division of Environmental Services.

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

- g) Miscellaneous Requirements
 - (1) None.



22. P010, Slitters and knotchers

Operations, Property and/or Equipment Description:

Corrugated carton cutting

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 operations(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. 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
	3,250 pounds per hour corrugated cardboard carton cutting controlled by a cyclone dust collector	
a.	OAC rule 3745-17-07(A)(1)	see b)(2)a.
b.	OAC rule 3745-17-11(B)(1)	particulate emissions (PE) shall not exceed 5.5 pounds per hour

(2) Additional Terms and Conditions

a. Except as provided in OAC rule 3745-17-07(A)(3), visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except:

- i. visible particulate emissions may exceed 20 percent opacity, as a six-minute average, for not more than six consecutive minutes in any sixty minutes; but
- ii. shall not exceed 60 percent opacity, as a six-minute average, at any time; and
- iii. the presence of uncombined water shall not be deemed a violation for failure of stack emissions meeting this requirement.

c) Operational Restrictions

(1) None.



d) **Monitoring and/or Recordkeeping Requirements**

- (1) 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 stack 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.

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

e) **Reporting Requirements**

- (1) The permittee shall submit quarterly written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. 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 Toledo Division of Environmental Services) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

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

f) **Testing Requirements**

- (1) None.

g) **Miscellaneous Requirements**

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:
 - a. Emission Limitation:
20% opacity as a 6-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)(1).



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

b. Emission Limitation:

5.5 pounds per hour of particulates

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 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.

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



23. P011, Decorating line #1

Operations, Property and/or Equipment Description:

Decorating and firing of glassware

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 operations(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. 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
Deco Lehr #1 for firing of decorating line #1 glassware,		
a.	OAC rule 3745-21-07(G)(1)	emissions of organic compounds from liquid organic materials shall not exceed 3 pounds per hour and 15 pounds per day; and
		see b)(2)a.

(2) Additional Terms and Conditions

a. The provisions of OAC rule 3745-21-07(G)(1) shall apply on any day during which the permittee utilizes any liquid organic material or substance containing liquid organic material.

The OC emission limitations of 3 pounds per hour and 15 pounds per day shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current OAC rule 3745-21-07 as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, these emission limitations and the associated monitoring, record keeping, reporting, and testing requirements shall be void.

c) Operational Restrictions

(1) None.



d) Monitoring and/or Recordkeeping Requirements

- (1) On any day during which the permittee utilizes any liquid organic material or substance containing liquid organic material, the permittee shall collect and record the following information:
- a. the company identification for each coating and photochemically reactive cleanup material employed;
 - b. the number of gallons of each coating and photochemically reactive cleanup material employed;
 - c. the organic compound content of each coating and photochemically reactive cleanup material, in pounds per gallon;
 - d. the total organic compound emission rate for all coatings and photochemically reactive cleanup materials, in pounds per day;
 - e. the total number of hours the emissions unit was in operation; and
 - f. the average hourly organic compound emission rate for all coatings and photochemically reactive cleanup materials, i.e., d./e., in pounds per hour (average).

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit. Also, the definitions of "photochemically reactive" and "nonphotochemically reactive" are based upon OAC rule 3745-21-01(C)(5).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
- a. an identification of each day during which the average hourly organic compound emissions from all liquid organic materials exceeded 3 pounds per hour, and the average hourly organic compound emissions for each such day; and
 - b. an identification of each day during which the organic compound emissions from all liquid organic materials exceeded 15 pounds per day, and the organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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



- (2) 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 Toledo Division of Environmental Services) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:

- a. Emission Limitations:

3 pounds per hour and 15 pounds per day of organic compounds from liquid organic material

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d). Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

- (1) None.



24. P012, Decorating line #2

Operations, Property and/or Equipment Description:

Decorating and firing of glassware

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 operations(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. 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
Deco Lehr #2 for firing of decorating line #2 glassware,		
a.	OAC rule 3745-21-07(G)(1)	emissions of organic compounds from liquid organic materials shall not exceed 3 pounds per hour and 15 pounds per day; and
		see b)(2)a.

(2) Additional Terms and Conditions

a. The provisions of OAC rule 3745-21-07(G)(1) shall apply on any day during which the permittee utilizes any liquid organic material or substance containing liquid organic material.

The OC emission limitations of 3 pounds per hour and 15 pounds per day shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current OAC rule 3745-21-07 as a revision to the Ohio SIP for organic compounds. After the rule is added to the Ohio SIP, these emission limitations and the associated monitoring, record keeping, reporting, and testing requirements shall be void.

c) Operational Restrictions

(1) None.



d) Monitoring and/or Recordkeeping Requirements

- (1) On any day during which the permittee utilizes any liquid organic material or substance containing liquid organic material, the permittee shall collect and record the following information:
- a. the company identification for each coating and photochemically reactive cleanup material employed;
 - b. the number of gallons of each coating and photochemically reactive cleanup material employed;
 - c. the organic compound content of each coating and photochemically reactive cleanup material, in pounds per gallon;
 - d. the total organic compound emission rate for all coatings and photochemically reactive cleanup materials, in pounds per day;
 - e. the total number of hours the emissions unit was in operation; and
 - f. the average hourly organic compound emission rate for all coatings and photochemically reactive cleanup materials, i.e., d./e., in pounds per hour (average).

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit. Also, the definitions of "photochemically reactive" and "nonphotochemically reactive" are based upon OAC rule 3745-21-01(C)(5).]

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

e) Reporting Requirements

- (1) The permittee shall submit deviation (excursion) reports which include the following information:
- a. an identification of each day during which the average hourly organic compound emissions from all liquid organic materials exceeded 3 pounds per hour, and the average hourly organic compound emissions for each such day; and
 - b. an identification of each day during which the organic compound emissions from all liquid organic materials exceeded 15 pounds per day, and the organic compound emissions for each such day.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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



- (2) 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 Toledo Division of Environmental Services) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:

- a. Emission Limitations:

3 pounds per hour and 15 pounds per day of organic compounds from liquid organic material

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of d). Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the liquid organic materials.

The requirements established under OAC rule 3745-21-07 shall cease to be effective and federally enforceable on the date the U.S. EPA approves the current rule as a revision to the Ohio SIP for the control of organic compounds.

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

g) Miscellaneous Requirements

- (1) None.



25. P021, Mold paste room

Operations, Property and/or Equipment Description:

Molds coated with cork dust

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 operations(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. 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
molds coated with cork dust with no control		
a.	OAC rule 3745-17-07(A)(1)	see b)(2)a.
b.	OAC rule 3745-17-11(B)(1)	particulate emissions shall not exceed 0.82 pound per hour

(2) Additional Terms and Conditions

a. Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, from the stack, except as provided by rule.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) 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 stack 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.

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

e) Reporting Requirements

- (1) The permittee shall submit quarterly written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. 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 Toledo Division of Environmental Services) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:

a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the methods and procedures of OAC rule 3745-17-03(B)(1).

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

b. Emission Limitation:

0.82 pound per hour of particulates

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the methods and procedures of OAC rule 3745-17-03(B)(10).

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

g) Miscellaneous Requirements

- (1) None.



26. P022, F - Furnace

Operations, Property and/or Equipment Description:

Glass melting furnace - 'F'

- 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 operations(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. 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
	glass melting furnace "F" with particulate control by checker design: 75 tons per day glass melting furnace, natural gas fired with electric boost	
a.	OAC rule 3745-31-05(A)(3) established by PTI 04-01456 as issued 12/5/2006	emissions of carbon monoxide (CO) shall not exceed 0.75 pound per hour or 3.29 tons per year;
		emissions of nitrogen oxides (NOx) shall not exceed 28.0 pounds per hour or 123 tons per year;
		particulate emissions (PE) shall not exceed 38.5 tons per year;
		emissions of particulate matter 10 microns or less in diameter (PM10) shall not exceed 8.66 pounds per hour or 37.9 tons per year;
		emissions of sulfur dioxide (SO2) shall not exceed 21.0 pounds per hour or 92.0 tons per year;
		emissions of volatile organic compounds (VOC) shall not exceed 1.13 pounds per hour or 4.95 tons per year; and
		see b)(2)a. thru b)(2)b.
b.	OAC rule 3745-17-07(A)(1)	see b)(2)c.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-11(B)(1)	emissions of PE shall not exceed 8.80 pounds per hour
d.	OAC rule 3745-18-06(E)(2)	see b)(2)d.
e.	OAC rule 3745-21-07(B)	see b)(2)e.
f.	OAC rule 3745-21-08(B)	see b)(2)f.
g.	40 CFR Part 60, Subpart CC	exempt, see b)(2)g.

(2) Additional Terms and Conditions

- a. The hourly and annual emission limitations were established for PTI purposes to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop monitoring, record keeping and/or reporting requirements to ensure compliance with these limitations.
- b. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1) and OAC rule 3745-17-11(B)(1).
- c. Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
- d. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- e. The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-07(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 18, 2008, OAC rule 3745-21-07 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- f. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to



Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- g. No "capital expenditure" was associated with the increase in the production rate of this emissions unit. Pursuant to 40 CFR 60.14(E)(2), an increase in the production rate of an existing facility shall not be considered a modification without a "capital expenditure".

c) Operational Restrictions

- (1) The permittee shall burn only natural gas and/or number two fuel oil in this emissions unit.

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

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, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

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

- (2) 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 stack 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 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.



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

- (3) The permittee shall monitor and record each day during which #2 fuel oil is burned in this emissions unit.

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

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 this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

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

- (2) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Toledo Division of Environmental Services) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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

- (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.

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

f) Testing Requirements

- (1) Compliance with the emission limitations in b) shall be determined in accordance with the following methods:

- a. Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

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

- b. Emission Limitation:

0.75 pound of CO per hour.



Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 15-2 dated 1/95, as follows: multiply the emission factor of 0.2 pound of CO emissions per ton of glass pulled by the maximum design rate of glass pull (3.125 tons per hour).

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

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

c. Emission Limitation:

3.29 tons of CO per year.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.75 pound of CO per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

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

d. Emission Limitation:

28.0 pounds of NOx per hour.

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 15-1 dated 1/95, as follows: multiply the emission factor of 8.5 pound of NOx emissions per ton of glass pulled by the maximum design rate of glass pull (3.125 tons per hour).

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

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

e. Emission Limitation:

123 tons of NOx per year.



Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 28.0 pounds of NOx per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

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

f. Emission Limitation:

8.80 pounds of PE per hour.

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 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 written approval from the Ohio EPA.

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

g. Emission Limitation:

38.5 tons of PE per year.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 8.80 pounds of PE per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

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

h. Emission Limitation:

8.66 pounds of PM10 per hour.

Applicable Compliance Method:

The permittee shall demonstrate compliance with this emission limitation in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.

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

i. Emission Limitation:

37.9 tons of PM10 per year.



Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 8.66 pounds of PM10 per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

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

j. Emission Limitation:

21.0 pounds of SO2 per hour.

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 15-1 dated 1/95, as follows: multiply the emission factor of 5.6 pound of SO2 emissions per ton of glass pulled by the maximum design rate of glass pull (3.125 tons per hour).

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 6 or 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 written approval from the Ohio EPA.

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

k. Emission Limitation:

92.0 tons of SO2 per year.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 21.0 pounds of SO2 per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

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

l. Emission Limitation:

1.13 pounds of VOC per hour.

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 15-2 dated 1/95, as follows: multiply the emission factor of 0.3 pound of VOC emissions per ton of glass pulled by the maximum design rate of glass pull (3.125 tons per hour).



If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 25 or 25A of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

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

m. Emission Limitation:

4.95 tons of VOC per year.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 1.13 pounds of VOC per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

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

(2) Emission testing requirements

If required, the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted approximately 6 months prior to permit renewal.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for NO_x and SO₂ from the glass melting furnace stack.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

NO_x: Methods 1-4 and 7E of 40 CFR Part 60, Appendix A

SO₂: Methods 1-4 and 6C of 40 CFR Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio



EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

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

g) Miscellaneous Requirements

- (1) 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.

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