



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

12/31/01

CERTIFIED MAIL

RE: Final Title V Chapter 3745-77 permit

04-48-01-0066
Libbey Glass Inc.
Shawn W. Zablocki
1201 Buckeye Street
Toledo, OH 43611

Dear Shawn W. Zablocki:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

If you have any questions, please contact Toledo Div of Environmental Services.

Very truly yours,

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: Toledo Div of Environmental Services
File, DAPC PMU



State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: 12/31/01

Effective Date: 12/31/01

Expiration Date: 12/31/06

This document constitutes issuance of a Title V permit for Facility ID: 04-48-01-0066 to: Libbey Glass Inc. 1201 Buckeye Street Toledo, OH 43611

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and Emissions Unit Activity Description. Rows include units B004 through B006, F003 through F010, and P011 through P024.

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. 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.

Described below is the Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Toledo Div of Environmental Services
348 South Erie Street
Toledo, OH 43602-1633
(419) 936-3015

OHIO ENVIRONMENTAL PROTECTION AGENCY

A handwritten signature in black ink, appearing to read "Christopher Jones", written over a solid black horizontal line.

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., 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.) See B.8 below if no deviations occurred during the quarter.
 - iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to

the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

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

3. Risk Management Plans

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

4. 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.

5. 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.

6. 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. 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.

7. 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.

8. 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.

9. 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 general terms and conditions shall apply to all operating scenarios authorized in this permit.

10. 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 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.

11. 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.

12. 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:
 - i. 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.

- ii. 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.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. 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:
- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. 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 appropriate Ohio EPA District Office or local air agency in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - ii. 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.
 - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

13. 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.

14. 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).

15. 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.

16. 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, except that no such notice shall be required for changes that qualify as insignificant emission 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; and
- 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.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

17. 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.

18. Insignificant Activity

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

B. State Only Enforceable Section

1. 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.

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping 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 (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., 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.)

3. Records Retention Requirements

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.

4. 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.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction 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).

6. 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.

7. 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.

8. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforcable Section

None

B. State Only Enforceable Section

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

Z002 - groundwater treatment plant;
B003 - boiler #4;
F001 - batch unloading facilities;
F002 - batch house;
F018 - roadways and parking lots;
G001 - gasoline dispensing facility;
K001 - maintenance shop paint booth;
N001 - calcinator incinerator;
P023 - mycalex machining room;
R001 - spray booth position #1;
Z003 - cullet crusher #1;
Z004 - cullet crusher #2;
Z005 - forehearth stirrer preheater;
Z006 - mold shop walnut blaster; and
Z007 - mold shop grit blaster.

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 a permit to install for the emissions unit.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Boiler #1 (B004)

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10.3 mmBtu/hr boiler fired with natural gas or #2 fuel oil with no controls	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 3745-17-10(B)(1)	0.020 pound of particulates per million Btu of actual heat input
	OAC rule 3745-18-06(D)	See A.I.2.b below.
	OAC rule 3745-21-07(B)	0.01 pound of volatile organic compounds per million Btu of actual heat input
	OAC rule 3745-21-08(B)	0.09 pound of carbon monoxide per million Btu of actual heat input
	OAC rule 3745-23-06(B)	0.145 pound of nitrogen oxides per million Btu of actual heat input
	OAC rule 3745-31-05(A)(3) (established by PTI 04-367, as issued on November 26, 1986)	0.52 pound of sulfur dioxide per million Btu of actual heat input See A.I.2.c and A.I.2.d below.
	OAC rule 3745-31-05(D) (synthetic minor limitation established by PTI 04-367, as issued on November 26, 1986)	See A.I.2.e below.

2. Additional Terms and Conditions

- 2.a Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
- 2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.c The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 34 tons of carbon monoxide, 18.4 tons of nitrogen oxides, 1.23 tons of particulates, or 0.74 ton of volatile organic compounds.

2. Additional Terms and Conditions (continued)

- 2.d** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-10(B)(1), OAC rule 3745-21-07(B), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).
- 2.e** The combined emissions from emissions units B004, B005, and B006 shall not exceed 38.04 tons of sulfur dioxide as a rolling, 12-month summation.

II. Operational Restrictions

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

III. Monitoring and/or Record Keeping 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.
2. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the permittee's or oil supplier's analyses for sulfur content and heat content.
4. The permittee shall calculate and record the sulfur dioxide emission rate, in pounds per million Btu, from the analytical results provided by the permittee or oil supplier for each shipment of oil received in accordance with the methods and procedures of OAC rule 3745-18-04(F)(2).
5. 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.
6. 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.

IV. 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 #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.

IV. Reporting Requirements (continued)

2. These deviation reports shall be submitted within 30 days of the discovery of an exceedence. The permittee shall also submit an annual report summarizing the information collected to comply with the monitoring and record keeping requirements of section III of this permit. This annual report shall be submitted by April 15 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil as determined through the record keeping requirements of section A.III.1 shall be considered an adequate demonstration of compliance with this emission limitation, or compliance may be demonstrated using the methods and procedures of OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:

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

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil as determined through the record keeping requirements of section A.III.1 shall be considered an adequate demonstration of compliance with this emission limitation.

OR

For natural gas: divide the AP-42 (Table 1.4-2, 7/98 Edition) particulate emission factor of 1.9 pounds of particulate emissions per million cubic feet of natural gas by an average natural gas heating value of 1,020 Btu per standard cubic foot natural gas.

For #2 fuel oil: divide the AP-42 (Table 1.3-1, 9/98 Edition) particulate emission factor of 2 pounds per thousand gallons by an average #2 fuel oil heating value of 140 million Btu per thousand gallons.

OR

If required, use the methods and procedures provided in OAC rule 3745-17-03(B)(9).

V. Testing Requirements (continued)

1.c Emission Limitation:

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

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil shall be considered an adequate demonstration of compliance with this emission limitation.

OR

For gas: divide the AP-42 (Table 1.4-2, 7/98 Edition) volatile organic compound emission factor of 5.5 pounds of volatile organic compound emissions per million cubic feet of natural gas by an average natural gas heating value of 1,020 Btu per standard cubic feet natural gas.

For #2 fuel oil: divide the AP-42 (Table 1.3-3, 9/98 Edition) volatile organic compound emission factor for #2 fuel oil combustion of 0.2 pound of volatile organic compound per thousand gallons of #2 fuel oil usage by the #2 fuel oil heating value of 140 million Btu per thousand gallons.

OR

If required, use the methods and procedures provided in Method 25 of 40 CFR Part 60, Appendix A, or other method approved by the Ohio EPA.

1.d Emission Limitation:

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

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil shall be considered an adequate demonstration of compliance with this emission limitation.

OR

For gas: divide the AP-42 (7/98 Edition) carbon monoxide emission factor of 84 pounds of carbon monoxide emissions per million cubic feet of natural gas by an average natural gas heating value of 1,020 Btu per standard cubic foot natural gas.

For #2 fuel oil: divide 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 #2 fuel oil heating value of 140 million Btu per thousand gallons.

OR

If required, use the methods and procedures provided in Method 10 of 40 CFR Part 60, Appendix A, or other method approved by the Ohio EPA.

V. Testing Requirements (continued)

1.e Emission Limitation:

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

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil shall be considered an adequate demonstration of compliance with this emission limitation.

OR

For gas: divide the AP-42 (Table 1.4-1, 7/98 Edition) nitrogen oxides emission factor of 100 pounds of nitrogen oxides emissions per million cubic feet of natural gas by an average natural gas heating value of 1,020 Btu per standard cubic foot of natural gas.

For #2 fuel oil: divide the AP-42 (Table 1.3-1, 9/98 Edition) nitrogen oxides emission factor of 20 pounds of nitrogen oxides emissions per thousand gallons of #2 fuel oil by the #2 fuel oil heating value of 140 million Btu per thousand gallons.

OR

If required, use the methods and procedures provided in Method 7 of 40 CFR Part 60, Appendix A, or other method approved by the Ohio EPA.

1.f Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirements of section A.III.

OR

If required, use the methods and procedures provided in OAC rule 3745-18-04(E) and 04(F).

1.g 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 with the annual #2 fuel oil throughput limitation in section B.II.1 shall be considered an adequate demonstration of compliance with this emission limitation.

OR

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.

V. Testing Requirements (continued)

1.h 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 with the annual #2 fuel oil throughput limitation in section A.II.3 shall be considered an adequate demonstration of compliance with this emission limitation.

OR

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.

1.i 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 with the annual #2 fuel oil throughput limitation in section A.II.3 shall be considered an adequate demonstration of compliance with this emission limitation.

OR

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.

1.j 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:

The exclusive combustion of natural gas and/or #2 fuel oil shall be considered an adequate demonstration of compliance with this emission limitation.

OR

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.

Facility Name: **Libbey Glass Inc.**

Facility ID: **04-48-01-0066**

Emissions Unit: **Boiler #1 (B004)**

V. Testing Requirements (continued)

1.k 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 record keeping requirements of section A.III.6. This emission limitation was established in PTI 04-367 to reflect the combined potential to emit for emission units B003, B004 and B005 burning natural gas and a maximum 1,040,000 gallons of #2 fuel oil (see section III.4.) with a value of 0.52 pounds of sulfur dioxide per mmBtu and 140,000 Btu per gallon of #2 fuel oil (AP-42, Table 1.3-1, 9/98 Edition).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Boiler #2 (B005)

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10.3 mmBtu/hr boiler fired with natural gas or #2 fuel oil with no controls	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 3745-17-10(B)(1)	0.020 pound of particulates per million Btu of actual heat input
	OAC rule 3745-18-06(D)	See A.I.2.b below.
	OAC rule 3745-21-07(B)	0.01 pound of volatile organic compounds per million Btu of actual heat input
	OAC rule 3745-21-08(B)	0.09 pound of carbon monoxide per million Btu of actual heat input
	OAC rule 3745-23-06(B)	0.145 pound of nitrogen oxides per million Btu of actual heat input
	OAC rule 3745-31-05(A)(3) (established by PTI 04-367, as issued on November 26, 1986)	0.52 pound of sulfur dioxide per million Btu of actual heat input See A.I.2.c and A.I.2.d below.
	OAC rule 3745-31-05(D) (synthetic minor limitation established by PTI 04-367, as issued on November 26, 1986)	See A.I.2.e below.

2. Additional Terms and Conditions

- 2.a Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
- 2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.c The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 34 tons of carbon monoxide, 18.4 tons of nitrogen oxides, 1.23 tons of particulates, or 0.74 ton of volatile organic compounds.

2. Additional Terms and Conditions (continued)

- 2.d** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-10(B)(1), OAC rule 3745-21-07(B), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).
- 2.e** The combined emissions from emissions units B004, B005, and B006 shall not exceed 38.04 tons of sulfur dioxide as a rolling, 12-month summation.

II. Operational Restrictions

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

III. Monitoring and/or Record Keeping 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.
2. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the permittee's or oil supplier's analyses for sulfur content and heat content.
4. The permittee shall calculate and record the sulfur dioxide emission rate, in pounds per million Btu, from the analytical results provided by the permittee or oil supplier for each shipment of oil received in accordance with the methods and procedures of OAC rule 3745-18-04(F)(2).
5. 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.
6. 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.

IV. 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 #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.

IV. Reporting Requirements (continued)

2. These deviation reports shall be submitted within 30 days of the discovery of an exceedence. The permittee shall also submit an annual report summarizing the information collected to comply with the monitoring and record keeping requirements of section III of this permit. This annual report shall be submitted by April 15 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil as determined through the record keeping requirements of section A.III.1 shall be considered an adequate demonstration of compliance with this emission limitation, or compliance may be demonstrated using the methods and procedures of OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:

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

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil as determined through the record keeping requirements of section A.III.1 shall be considered an adequate demonstration of compliance with this emission limitation.

OR

For natural gas: divide the AP-42 (Table 1.4-2, 7/98 Edition) particulate emission factor of 1.9 pounds of particulate emissions per million cubic feet of natural gas by an average natural gas heating value of 1,020 Btu per standard cubic foot natural gas.

For #2 fuel oil: divide the AP-42 (Table 1.3-1, 9/98 Edition) particulate emission factor of 2 pounds per thousand gallons by an average #2 fuel oil heating value of 140 million Btu per thousand gallons.

OR

If required, use the methods and procedures provided in OAC rule 3745-17-03(B)(9).

V. Testing Requirements (continued)

1.c Emission Limitation:

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

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil shall be considered an adequate demonstration of compliance with this emission limitation.

OR

For gas: divide the AP-42 (Table 1.4-2, 7/98 Edition) volatile organic compound emission factor of 5.5 pounds of volatile organic compound emissions per million cubic feet of natural gas by an average natural gas heating value of 1,020 Btu per standard cubic feet natural gas.

For #2 fuel oil: divide the AP-42 (Table 1.3-3, 9/98 Edition) volatile organic compound emission factor for #2 fuel oil combustion of 0.2 pound of volatile organic compound per thousand gallons of #2 fuel oil usage by the #2 fuel oil heating value of 140 million Btu per thousand gallons.

OR

If required, use the methods and procedures provided in Method 25 of 40 CFR Part 60, Appendix A, or other method approved by the Ohio EPA.

1.d Emission Limitation:

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

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil shall be considered an adequate demonstration of compliance with this emission limitation.

OR

For gas: divide the AP-42 (7/98 Edition) carbon monoxide emission factor of 84 pounds of carbon monoxide emissions per million cubic feet of natural gas by an average natural gas heating value of 1,020 Btu per standard cubic foot natural gas.

For #2 fuel oil: divide 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 #2 fuel oil heating value of 140 million Btu per thousand gallons.

OR

If required, use the methods and procedures provided in Method 10 of 40 CFR Part 60, Appendix A, or other method approved by the Ohio EPA.

V. Testing Requirements (continued)

1.e Emission Limitation:

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

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil shall be considered an adequate demonstration of compliance with this emission limitation.

OR

For gas: divide the AP-42 (Table 1.4-1, 7/98 Edition) nitrogen oxides emission factor of 100 pounds of nitrogen oxides emissions per million cubic feet of natural gas by an average natural gas heating value of 1,020 Btu per standard cubic foot of natural gas.

For #2 fuel oil: divide the AP-42 (Table 1.3-1, 9/98 Edition) nitrogen oxides emission factor of 20 pounds of nitrogen oxides emissions per thousand gallons of #2 fuel oil by the #2 fuel oil heating value of 140 million Btu per thousand gallons.

OR

If required, use the methods and procedures provided in Method 7 of 40 CFR Part 60, Appendix A, or other method approved by the Ohio EPA.

1.f Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirements of section A.III.

OR

If required, use the methods and procedures provided in OAC rule 3745-18-04(E) and 04(F).

1.g 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 with the annual #2 fuel oil throughput limitation in section B.II.1 shall be considered an adequate demonstration of compliance with this emission limitation.

OR

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.

V. Testing Requirements (continued)

1.h 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 with the annual #2 fuel oil throughput limitation in section A.II.3 shall be considered an adequate demonstration of compliance with this emission limitation.

OR

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.

1.i 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 with the annual #2 fuel oil throughput limitation in section A.II.3 shall be considered an adequate demonstration of compliance with this emission limitation.

OR

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.

1.j 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:

The exclusive combustion of natural gas and/or #2 fuel oil shall be considered an adequate demonstration of compliance with this emission limitation.

OR

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.

Facility Name: **Libbey Glass Inc.**

Facility ID: **04-48-01-0066**

Emissions Unit: **Boiler #2 (B005)**

V. Testing Requirements (continued)

1.k 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 record keeping requirements of section A.III.6. This emission limitation was established in PTI 04-367 to reflect the combined potential to emit for emission units B003, B004 and B005 burning natural gas and a maximum 1,040,000 gallons of #2 fuel oil (see section III.4.) with a value of 0.52 pounds of sulfur dioxide per mmBtu and 140,000 Btu per gallon of #2 fuel oil (AP-42, Table 1.3-1, 9/98 Edition).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Boiler #3 (B006)

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
10.3 mmBtu/hr boiler fired with natural gas or #2 fuel oil with no controls	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 3745-17-10(B)(1)	0.020 pound of particulates per million Btu of actual heat input
	OAC rule 3745-18-06(D)	See A.I.2.b below.
	OAC rule 3745-21-07(B)	0.01 pound of volatile organic compounds per million Btu of actual heat input
	OAC rule 3745-21-08(B)	0.09 pound of carbon monoxide per million Btu of actual heat input
	OAC rule 3745-23-06(B)	0.145 pound of nitrogen oxides per million Btu of actual heat input
	OAC rule 3745-31-05(A)(3) (established by PTI 04-367, as issued on November 26, 1986)	0.52 pound of sulfur dioxide per million Btu of actual heat input See A.I.2.c and A.I.2.d below.
	OAC rule 3745-31-05(D) (synthetic minor limitation established by PTI 04-367, as issued on November 26, 1986)	See A.I.2.e below.

2. Additional Terms and Conditions

- 2.a Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
- 2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
- 2.c The combined annual emissions from emissions units B004, B005, and B006 shall not exceed 34 tons of carbon monoxide, 18.4 tons of nitrogen oxides, 1.23 tons of particulates, or 0.74 ton of volatile organic compounds.

2. Additional Terms and Conditions (continued)

- 2.d** The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1), OAC rule 3745-17-10(B)(1), OAC rule 3745-21-07(B), OAC rule 3745-21-08(B), and OAC rule 3745-23-06(B).
- 2.e** The combined emissions from emissions units B004, B005, and B006 shall not exceed 38.04 tons of sulfur dioxide as a rolling, 12-month summation.

II. Operational Restrictions

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

III. Monitoring and/or Record Keeping 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.
2. The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.
3. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the permittee's or oil supplier's analyses for sulfur content and heat content.
4. The permittee shall calculate and record the sulfur dioxide emission rate, in pounds per million Btu, from the analytical results provided by the permittee or oil supplier for each shipment of oil received in accordance with the methods and procedures of OAC rule 3745-18-04(F)(2).
5. 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.
6. 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.

IV. 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 #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.

IV. Reporting Requirements (continued)

2. These deviation reports shall be submitted within 30 days of the discovery of an exceedence. The permittee shall also submit an annual report summarizing the information collected to comply with the monitoring and record keeping requirements of section III of this permit. This annual report shall be submitted by April 15 of each year and shall cover the previous calendar year.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil as determined through the record keeping requirements of section A.III.1 shall be considered an adequate demonstration of compliance with this emission limitation, or compliance may be demonstrated using the methods and procedures of OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:

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

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil as determined through the record keeping requirements of section A.III.1 shall be considered an adequate demonstration of compliance with this emission limitation.

OR

For natural gas: divide the AP-42 (Table 1.4-2, 7/98 Edition) particulate emission factor of 1.9 pounds of particulate emissions per million cubic feet of natural gas by an average natural gas heating value of 1,020 Btu per standard cubic foot natural gas.

For #2 fuel oil: divide the AP-42 (Table 1.3-1, 9/98 Edition) particulate emission factor of 2 pounds per thousand gallons by an average #2 fuel oil heating value of 140 million Btu per thousand gallons.

OR

If required, use the methods and procedures provided in OAC rule 3745-17-03(B)(9).

V. Testing Requirements (continued)

1.c Emission Limitation:

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

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil shall be considered an adequate demonstration of compliance with this emission limitation.

OR

For gas: divide the AP-42 (Table 1.4-2, 7/98 Edition) volatile organic compound emission factor of 5.5 pounds of volatile organic compound emissions per million cubic feet of natural gas by an average natural gas heating value of 1,020 Btu per standard cubic feet natural gas.

For #2 fuel oil: divide the AP-42 (Table 1.3-3, 9/98 Edition) volatile organic compound emission factor for #2 fuel oil combustion of 0.2 pound of volatile organic compound per thousand gallons of #2 fuel oil usage by the #2 fuel oil heating value of 140 million Btu per thousand gallons.

OR

If required, use the methods and procedures provided in Method 25 of 40 CFR Part 60, Appendix A, or other method approved by the Ohio EPA.

1.d Emission Limitation:

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

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil shall be considered an adequate demonstration of compliance with this emission limitation.

OR

For gas: divide the AP-42 (7/98 Edition) carbon monoxide emission factor of 84 pounds of carbon monoxide emissions per million cubic feet of natural gas by an average natural gas heating value of 1,020 Btu per standard cubic foot natural gas.

For #2 fuel oil: divide 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 #2 fuel oil heating value of 140 million Btu per thousand gallons.

OR

If required, use the methods and procedures provided in Method 10 of 40 CFR Part 60, Appendix A, or other method approved by the Ohio EPA.

V. Testing Requirements (continued)

1.e Emission Limitation:

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

Applicable Compliance Method:

The exclusive combustion of natural gas and/or #2 fuel oil shall be considered an adequate demonstration of compliance with this emission limitation.

OR

For gas: divide the AP-42 (Table 1.4-1, 7/98 Edition) nitrogen oxides emission factor of 100 pounds of nitrogen oxides emissions per million cubic feet of natural gas by an average natural gas heating value of 1,020 Btu per standard cubic foot of natural gas.

For #2 fuel oil: divide the AP-42 (Table 1.3-1, 9/98 Edition) nitrogen oxides emission factor of 20 pounds of nitrogen oxides emissions per thousand gallons of #2 fuel oil by the #2 fuel oil heating value of 140 million Btu per thousand gallons.

OR

If required, use the methods and procedures provided in Method 7 of 40 CFR Part 60, Appendix A, or other method approved by the Ohio EPA.

1.f Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirements of section A.III.

OR

If required, use the methods and procedures provided in OAC rule 3745-18-04(E) and 04(F).

1.g 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 with the annual #2 fuel oil throughput limitation in section B.II.1 shall be considered an adequate demonstration of compliance with this emission limitation.

OR

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.

V. Testing Requirements (continued)

1.h 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 with the annual #2 fuel oil throughput limitation in section A.II.3 shall be considered an adequate demonstration of compliance with this emission limitation.

OR

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.

1.i 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 with the annual #2 fuel oil throughput limitation in section A.II.3 shall be considered an adequate demonstration of compliance with this emission limitation.

OR

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.

1.j 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:

The exclusive combustion of natural gas and/or #2 fuel oil shall be considered an adequate demonstration of compliance with this emission limitation.

OR

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.

V. Testing Requirements (continued)

1.k 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 record keeping requirements of section A.III.6. This emission limitation was established in PTI 04-367 to reflect the combined potential to emit for emission units B003, B004 and B005 burning natural gas and a maximum 1,040,000 gallons of #2 fuel oil (see section III.4.) with a value of 0.52 pounds of sulfur dioxide per mmBtu and 140,000 Btu per gallon of #2 fuel oil (AP-42, Table 1.3-1, 9/98 Edition).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: A-1 Forming line (F003)
Activity Description: Glass forming line A-1 and annealing lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass forming line A-1 and annealing lehr with no controls	OAC rule 3745-17-07(B)(1)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(3)	See A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	47 lbs/hr of sulfur dioxide
	OAC rule 3745-21-07(G)(2)	8 lbs/hr and 40 lbs/day of organic materials

2. Additional Terms and Conditions

- 2.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.
- 2.b It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.

III. Monitoring and/or Record Keeping 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 lbs/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 lbs/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 lbs/hr (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).]

IV. 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.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(3)
 - 1.b Emission Limitation:

47 lbs/hr of sulfur dioxide

Applicable Compliance Method:

The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation or, if required, use the procedures and methods of OAC rule 3745-18-04(E).

V. Testing Requirements (continued)

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 section A.III.2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-1 Forming line (F004)
Activity Description: Glass forming line B-1 and annealing lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass forming line A-1 and annealing lehr with no controls	OAC rule 3745-17-07(B)(1)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(3)	See A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	44 lbs/hr of sulfur dioxide
	OAC rule 3745-21-07(G)(2)	8 lbs/hr and 40 lbs/day of organic materials

2. Additional Terms and Conditions

- 2.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.
- 2.b It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.

III. Monitoring and/or Record Keeping 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 lbs/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 lbs/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 lbs/hr (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).]

IV. 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.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(3)
 - 1.b Emission Limitation:

44 lbs/hr of sulfur dioxide

Applicable Compliance Method:

The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation or, if required, use the procedures and methods of OAC rule 3745-18-04(E).

V. Testing Requirements (continued)

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 section A.III.2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B-2 Forming line (F005)
Activity Description: Glass forming line B-2 and annealing lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass forming line B-2 and annealing lehr with no controls	OAC rule 3745-17-07(B)(1)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(3)	See A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	47 lbs/hr of sulfur dioxide
	OAC rule 3745-21-07(G)(2)	8 lbs/hr and 40 lbs/day of organic materials

2. Additional Terms and Conditions

- 2.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.
- 2.b It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.

III. Monitoring and/or Record Keeping 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 lbs/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 lbs/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 lbs/hr (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).]

IV. 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.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(3)
 - 1.b Emission Limitation:

47 lbs/hr of sulfur dioxide

Applicable Compliance Method:

The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation or, if required, use the procedures and methods of OAC rule 3745-18-04(E).

V. Testing Requirements (continued)

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 section A.III.2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: D-1 Forming line (F007)
Activity Description: Glass forming line D-1 and annealing lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass forming line D-1 and annealing lehr with no controls	OAC rule 3745-17-07(B)(1)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(3)	See A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	52 lbs/hr of sulfur dioxide
	OAC rule 3745-21-07(G)(2)	8 lbs/hr and 40 lbs/day of organic materials

2. Additional Terms and Conditions

- 2.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.
- 2.b It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.

III. Monitoring and/or Record Keeping 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 lbs/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 lbs/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 lbs/hr (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).]

IV. 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.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(3)
 - 1.b Emission Limitation:

52 lbs/hr of sulfur dioxide

Applicable Compliance Method:

The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation or, if required, use the procedures and methods of OAC rule 3745-18-04(E).

V. Testing Requirements (continued)

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 section A.III.2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: D-2 Forming line (F008)
Activity Description: Glass forming line D-2 and annealing lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass forming line D-2 and annealing lehr with no controls	OAC rule 3745-17-07(B)(1)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(3)	See A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	41 lbs/hr of sulfur dioxide
	OAC rule 3745-21-07(G)(2)	8 lbs/hr and 40 lbs/day of organic materials

2. Additional Terms and Conditions

- 2.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.
- 2.b It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.

III. Monitoring and/or Record Keeping 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 lbs/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 lbs/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 lbs/hr (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).]

IV. 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.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(3)
 - 1.b Emission Limitation:

41 lbs/hr of sulfur dioxide

Applicable Compliance Method:

The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation or, if required, use the procedures and methods of OAC rule 3745-18-04(E).

V. Testing Requirements (continued)

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 section A.III.2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: E-1 Forming line (F009)
Activity Description: Glass forming line E-1 and annealing lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass forming line E-1 and annealing lehr with no controls	OAC rule 3745-17-07(B)(1)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(3)	See A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	45 lbs/hr of sulfur dioxide
	OAC rule 3745-21-07(G)(2)	8 lbs/hr and 40 lbs/day of organic materials

2. Additional Terms and Conditions

- 2.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.
- 2.b It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.

III. Monitoring and/or Record Keeping 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 lbs/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 lbs/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 lbs/hr (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).]

IV. 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.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(3)
 - 1.b Emission Limitation:

45 lbs/hr of sulfur dioxide

Applicable Compliance Method:

The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation or, if required, use the procedures and methods of OAC rule 3745-18-04(E).

V. Testing Requirements (continued)

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 section A.III.2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: F-1 Forming line (F010)
Activity Description: Glass forming line F-1 and annealing lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass forming line F-1 and annealing lehr with no controls	OAC rule 3745-17-07(B)(1)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(3)	See A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	41 lbs/hr of sulfur dioxide
	OAC rule 3745-21-07(G)(2)	8 lbs/hr and 40 lbs/day of organic materials

2. Additional Terms and Conditions

- 2.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.
- 2.b It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.

III. Monitoring and/or Record Keeping 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 lbs/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 lbs/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 lbs/hr (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).]

IV. 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.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(3)
 - 1.b Emission Limitation:

41 lbs/hr of sulfur dioxide

Applicable Compliance Method:

The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation or, if required, use the procedures and methods of OAC rule 3745-18-04(E).

V. Testing Requirements (continued)

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 section A.III.2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: F-2 Forming line (F011)
Activity Description: Glass forming line F-2 and annealing lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass forming line F-2 and annealing lehr with no controls	OAC rule 3745-17-07(B)(1)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(3)	See A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	47 lbs/hr of sulfur dioxide
	OAC rule 3745-21-07(G)(2)	8 lbs/hr and 40 lbs/day of organic materials

2. Additional Terms and Conditions

- 2.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.
- 2.b It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.

III. Monitoring and/or Record Keeping 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 lbs/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 lbs/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 lbs/hr (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).]

IV. 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.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(3)
 - 1.b Emission Limitation:

47 lbs/hr of sulfur dioxide

Applicable Compliance Method:

The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation or, if required, use the procedures and methods of OAC rule 3745-18-04(E).

V. Testing Requirements (continued)

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 section A.III.2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G-2 Forming line (F012)
Activity Description: Glass forming line G-2 and annealing Lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass forming line G-2 and annealing Lehr with no controls	OAC rule 3745-17-07(B)(1)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(3)	See A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	32 lbs/hr of sulfur dioxide
	OAC rule 3745-21-07(G)(2)	8 lbs/hr and 40 lbs/day of organic materials

2. Additional Terms and Conditions

- 2.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.
- 2.b It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.

III. Monitoring and/or Record Keeping 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 lbs/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 lbs/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 lbs/hr (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).]

IV. 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.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(3)
 - 1.b Emission Limitation:

32 lbs/hr of sulfur dioxide

Applicable Compliance Method:

The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation or, if required, use the procedures and methods of OAC rule 3745-18-04(E).

V. Testing Requirements (continued)

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 section A.III.2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G-3 Forming line (F013)
Activity Description: Glass forming line G-3 and annealing Lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass forming line G-3 and annealing Lehr with no controls	OAC rule 3745-17-07(B)(1)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(3)	See A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	33 lbs/hr of sulfur dioxide
	OAC rule 3745-21-07(G)(2)	8 lbs/hr and 40 lbs/day of organic materials

2. Additional Terms and Conditions

- 2.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.
- 2.b It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.

III. Monitoring and/or Record Keeping 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 lbs/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 lbs/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 lbs/hr (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).]

IV. 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.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.1.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(3)
 - 1.b Emission Limitation:

33 lbs/hr of sulfur dioxide

Applicable Compliance Method:

The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation or, if required, use the procedures and methods of OAC rule 3745-18-04(E).

V. Testing Requirements (continued)

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 section A.III.2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G-4 Forming line (F014)
Activity Description: Glass forming line G-4 and annealing Lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass forming line G-4 and annealing Lehr with no controls	OAC rule 3745-17-07(B)(1)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(3)	See A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	41 lbs/hr of sulfur dioxide
	OAC rule 3745-21-07(G)(2)	8 lbs/hr and 40 lbs/day of organic materials

2. Additional Terms and Conditions

- 2.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.
- 2.b It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.

III. Monitoring and/or Record Keeping 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 lbs/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 lbs/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 lbs/hr (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).]

IV. 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.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.1.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(3)
 - 1.b Emission Limitation:

41 lbs/hr of sulfur dioxide

Applicable Compliance Method:

The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation or, if required, use the procedures and methods of OAC rule 3745-18-04(E).

V. Testing Requirements (continued)

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 section A.III.2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G-5 Forming line (F015)
Activity Description: Glass forming line G-5 and annealing Lehr

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass forming line G-5 and annealing Lehr with no controls	OAC rule 3745-17-07(B)(1)	See A.I.2.a below.
	OAC rule 3745-17-08(B), (B)(3)	See A.I.2.b below.
	OAC rule 3745-18-06(E)(2)	47 lbs/hr of sulfur dioxide
	OAC rule 3745-21-07(G)(2)	8 lbs/hr and 40 lbs/day of organic materials

2. Additional Terms and Conditions

- 2.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.
- 2.b It has been determined that no control measures are necessary to comply with the requirements of OAC rule 3745-17-08.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or propane as fuel in this emissions unit.

III. Monitoring and/or Record Keeping 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 lbs/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 lbs/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 lbs/hr (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).]

IV. 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.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - 1.a Emission Limitation:

20% opacity as a 3-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(3)
 - 1.b Emission Limitation:

47 lbs/hr of sulfur dioxide

Applicable Compliance Method:

The exclusive combustion of natural gas and/or propane shall be considered an adequate demonstration of compliance with this emissions limitation or, if required, use the procedures and methods of OAC rule 3745-18-04(E).

V. Testing Requirements (continued)

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 section A.III.2. Formulation data or USEPA Method 24 shall be used to determine the organic compound content of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: A - Furnace (P002)
Activity Description: Glass melting furnace - 'A'

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass melting furnace "A" with no controls	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 3745-17-11(B)(1)	6.4 lbs/hr of particulates
	OAC rule 3745-18-06(E)(2)	47 lbs/hr of sulfur dioxide

2. Additional Terms and Conditions

- 2.a Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, from the stack, except as provided by rule.
- 2.b This emissions unit can be fired with natural gas and #2 fuel oil. However, #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.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping 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 abnormal 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 abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

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.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1 or, if required, through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

6.4 lbs/hr of particulates

Applicable Compliance Method:

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 section A.III.2.

OR

If required, the permittee shall perform emission testing in accordance with the methods and procedures of OAC rule 3745-17-03(B)(10).

1.c Emission Limitation:

47 lbs/hr of sulfur dioxide

Applicable Compliance Method:

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 section A.III.2.

OR

If required, the permittee shall perform emission testing in accordance with the methods and procedures of OAC rule 3745-18-04(E)(1).

V. Testing Requirements (continued)

2. 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 to demonstrate compliance with the allowable mass emission rate(s) for particulates and/or 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 6 of 40 CFR Part 60, Appendix A for particulate and sulfur dioxide emissions, respectively. 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 perform additional test(s) while combusting fuel oil, at the earliest possible date.
 - 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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: B - Furnace (P003)
Activity Description: Glass melting furnace - 'B'

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass melting furnace "B" with no controls	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 3745-17-11(B)(1)	12 lbs/hr of particulates
	OAC rule 3745-18-06(E)(2)	86 lbs/hr of sulfur dioxide

2. Additional Terms and Conditions

- 2.a Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, from the stack, except as provided by rule.
- 2.b This emissions unit can be fired with natural gas and #2 fuel oil. However, #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.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping 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 abnormal 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 abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

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.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1 or, if required, through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(1).

- 1.b Emission Limitation:

12 lbs/hr of particulates

Applicable Compliance Method:

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 section A.III.2.

OR

If required, the permittee shall perform emission testing in accordance with the methods and procedures of OAC rule 3745-17-03(B)(10).

- 1.c Emission Limitation:

86 lbs/hr of sulfur dioxide

Applicable Compliance Method:

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 section A.III.2.

OR

If required, the permittee shall perform emission testing in accordance with the methods and procedures of OAC rule 3745-18-04(E)(1).

V. Testing Requirements (continued)

2. 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 to demonstrate compliance with the allowable mass emission rate(s) for particulates and/or 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 6 of 40 CFR Part 60, Appendix A for particulate and sulfur dioxide emissions, respectively. 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 perform additional test(s) while combusting fuel oil, at the earliest possible date.
 - 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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: D - Furnace (P005)
Activity Description: Glass melting furnace - 'D'

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass melting furnace "D" with no controls	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 3745-17-11(B)(1)	8.4 lbs/hr of particulates
	OAC rule 3745-18-06(E)(2)	62 lbs/hr of sulfur dioxide

2. Additional Terms and Conditions

- 2.a Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, from the stack, except as provided by rule.
- 2.b This emissions unit can be fired with natural gas and #2 fuel oil. However, #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.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping 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 abnormal 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 abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

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.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1 or, if required, through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

8.4 lbs/hr of particulates

Applicable Compliance Method:

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 section A.III.2.

OR

If required, the permittee shall perform emission testing in accordance with the methods and procedures of OAC rule 3745-17-03(B)(10).

1.c Emission Limitation:

62 lbs/hr of sulfur dioxide

Applicable Compliance Method:

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 section A.III.2.

OR

If required, the permittee shall perform emission testing in accordance with the methods and procedures of OAC rule 3745-18-04(E)(1).

V. Testing Requirements (continued)

2. 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 to demonstrate compliance with the allowable mass emission rate(s) for particulates and/or 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 6 of 40 CFR Part 60, Appendix A for particulate and sulfur dioxide emissions, respectively. 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 perform additional test(s) while combusting fuel oil, at the earliest possible date.
 - 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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: E - Furnace (P006)
Activity Description: Glass melting furnace - 'E'

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass melting furnace "E" with no controls	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 3745-17-11(B)(1)	8.4 lbs/hr of particulates
	OAC rule 3745-18-06(E)(2)	62 lbs/hr of sulfur dioxide

2. Additional Terms and Conditions

- 2.a Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, from the stack, except as provided by rule.
- 2.b This emissions unit can be fired with natural gas and #2 fuel oil. However, #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.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping 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 abnormal 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 abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

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.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1 or, if required, through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

8.4 lbs/hr of particulates

Applicable Compliance Method:

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 section A.III.2.

OR

If required, the permittee shall perform emission testing in accordance with the methods and procedures of OAC rule 3745-17-03(B)(10).

1.c Emission Limitation:

62 lbs/hr of sulfur dioxide

Applicable Compliance Method:

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 section A.III.2.

OR

If required, the permittee shall perform emission testing in accordance with the methods and procedures of OAC rule 3745-18-04(E)(1).

V. Testing Requirements (continued)

2. 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 to demonstrate compliance with the allowable mass emission rate(s) for particulates and/or 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 6 of 40 CFR Part 60, Appendix A for particulate and sulfur dioxide emissions, respectively. 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 perform additional test(s) while combusting fuel oil, at the earliest possible date.
 - 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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G - Furnace (P007)
Activity Description: Glass melting furnace - 'G'

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass melting furnace "G" with no controls	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 3745-17-11(B)(1)	13 lbs/hr of particulates
	OAC rule 3745-18-06(E)(2)	93 lbs/hr of sulfur dioxide

2. Additional Terms and Conditions

- 2.a Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, from the stack, except as provided by rule.
- 2.b This emissions unit can be fired with natural gas and #2 fuel oil. However, #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.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping 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 abnormal 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 abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

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.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1 or, if required, through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

13 lbs/hr of particulates

Applicable Compliance Method:

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 section A.III.2.

OR

If required, the permittee shall perform emission testing in accordance with the methods and procedures of OAC rule 3745-17-03(B)(10).

1.c Emission Limitation:

93 lbs/hr of sulfur dioxide

Applicable Compliance Method:

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 section A.III.2.

OR

If required, the permittee shall perform emission testing in accordance with the methods and procedures of OAC rule 3745-18-04(E)(1).

V. Testing Requirements (continued)

2. Within 3 months after 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 6 of 40 CFR Part 60, Appendix A for particulate and sulfur dioxide emissions, respectively. Alternative USEPA approved test methods may be used with prior approval from the Ohio EPA.
 - c. 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.
 - d. The test(s) shall be conducted while combusting natural gas.
 - e. 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 perform additional test(s) while combusting fuel oil, at the earliest possible date.

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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Slitters and knotchers (P010)
Activity Description: Corrugated carton cutting

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
3,250 lbs/hr corrugated carton cutting with a cyclone	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 1745-17-11(B)(1)	5.7 lbs/hr of particulates

2. Additional Terms and Conditions

- 2.a Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, from the stack, except as provided by rule.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping 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.

IV. Reporting Requirements

1. The permittee shall submit semiannual 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. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through the monitoring and record keeping requirements of section A.III.1. If required, the permittee shall demonstrate compliance in accordance with the methods and procedures of OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

5.7 lbs/hr of particulates

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance in accordance with the methods and procedures of OAC rule 3745-17-03(B)(10).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Decorating line #1 (P011)
Activity Description: Decorating and firing of glassware

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
decorating and firing of glassware, <10 MMBtu direct gas fired with no control	OAC rule 3745-18-06(B)	exemption from SO2 emission limitations
	OAC rule 3745-21-07(G)(1)	3 lbs/hr and 15 lbs/day of organic compounds from liquid organic materials

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for each day that a liquid organic material is used in this emissions unit:
 - a. the company identification of each liquid organic material employed;
 - b. the number of gallons of each liquid organic material employed;
 - c. the organic compound content of each liquid organic material employed, in lbs/gallon;
 - d. the total daily organic compound emission rate for all liquid organic materials employed in this emissions unit, in lbs/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 lbs/hr (average).

[Note: The liquid organic material information must be for the liquid organic material as employed, including any thinning solvents added at the emissions unit. Also, the definition of "liquid organic material" is based upon OAC rule 3745-21-01(C).]

IV. 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 lbs/hr, 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 lbs/day, and the organic compound emissions for each such day.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitations:

3 lbs/hr and 15 lbs/day of organic compounds from liquid organic material

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1. Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Decorating line #2 (P012)
Activity Description: Decorating and firing of glassware

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
decorating and firing of glassware, <10 MMBtu direct gas fired with no control	OAC rule 3745-18-06(B)	exemption from SO2 emission limitations
	OAC rule 3745-21-07(G)(1)	3 lbs/hr and 15 lbs/day of organic compounds from liquid organic materials

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for each day that a liquid organic material is used in this emissions unit:
 - a. the company identification of each liquid organic material employed;
 - b. the number of gallons of each liquid organic material employed;
 - c. the organic compound content of each liquid organic material employed, in lbs/gallon;
 - d. the total daily organic compound emission rate for all liquid organic materials employed in this emissions unit, in lbs/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 lbs/hr (average).

[Note: The liquid organic material information must be for the liquid organic material as employed, including any thinning solvents added at the emissions unit. Also, the definition of "liquid organic material" is based upon OAC rule 3745-21-01(C).]

IV. 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 lbs/hr, 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 lbs/day, and the organic compound emissions for each such day.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitations:

3 lbs/hr and 15 lbs/day of organic compounds from liquid organic material

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1. Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Decorating line #3 (P013)
Activity Description: Decorating and firing of glassware

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
decorating and firing of glassware, <10 MMBtu direct gas fired with no control	OAC rule 3745-18-06(B)	exemption from SO2 emission limitations
	OAC rule 3745-21-07(G)(1)	3 lbs/hr and 15 lbs/day of organic compounds from liquid organic materials

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for each day that a liquid organic material is used in this emissions unit:
 - a. the company identification of each liquid organic material employed;
 - b. the number of gallons of each liquid organic material employed;
 - c. the organic compound content of each liquid organic material employed, in lbs/gallon;
 - d. the total daily organic compound emission rate for all liquid organic materials employed in this emissions unit, in lbs/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 lbs/hr (average).

[Note: The liquid organic material information must be for the liquid organic material as employed, including any thinning solvents added at the emissions unit. Also, the definition of "liquid organic material" is based upon OAC rule 3745-21-01(C).]

IV. 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 lbs/hr, 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 lbs/day, and the organic compound emissions for each such day.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitations:

3 lbs/hr and 15 lbs/day of organic compounds from liquid organic material

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1. Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Decorating line #4 (P014)
Activity Description: Decorating and firing of glassware

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
decorating and firing of glassware, <10 MMBtu direct gas fired with no control	OAC rule 3745-18-06(B)	exemption from SO2 emission limitations
	OAC rule 3745-21-07(G)(1)	3 lbs/hr and 15 lbs/day of organic compounds from liquid organic materials

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for each day that a liquid organic material is used in this emissions unit:
 - a. the company identification of each liquid organic material employed;
 - b. the number of gallons of each liquid organic material employed;
 - c. the organic compound content of each liquid organic material employed, in lbs/gallon;
 - d. the total daily organic compound emission rate for all liquid organic materials employed in this emissions unit, in lbs/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 lbs/hr (average).

[Note: The liquid organic material information must be for the liquid organic material as employed, including any thinning solvents added at the emissions unit. Also, the definition of "liquid organic material" is based upon OAC rule 3745-21-01(C).]

IV. 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 lbs/hr, 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 lbs/day, and the organic compound emissions for each such day.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitations:

3 lbs/hr and 15 lbs/day of organic compounds from liquid organic material

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1. Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Decorating line #5 (P015)
Activity Description: Decorating and firing of glassware

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
decorating and firing of glassware, <10 MMBtu direct gas fired with no control	OAC rule 3745-18-06(B)	exemption from SO2 emission limitations
	OAC rule 3745-21-07(G)(1)	3 lbs/hr and 15 lbs/day of organic compounds from liquid organic materials

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for each day that a liquid organic material is used in this emissions unit:
 - a. the company identification of each liquid organic material employed;
 - b. the number of gallons of each liquid organic material employed;
 - c. the organic compound content of each liquid organic material employed, in lbs/gallon;
 - d. the total daily organic compound emission rate for all liquid organic materials employed in this emissions unit, in lbs/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 lbs/hr (average).

[Note: The liquid organic material information must be for the liquid organic material as employed, including any thinning solvents added at the emissions unit. Also, the definition of "liquid organic material" is based upon OAC rule 3745-21-01(C).]

IV. 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 lbs/hr, 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 lbs/day, and the organic compound emissions for each such day.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitations:

3 lbs/hr and 15 lbs/day of organic compounds from liquid organic material

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1. Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Decorating line #7 (P017)
Activity Description: Decorating and firing of glassware

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
decorating and firing of glassware, <10 MMBtu direct gas fired with no control	OAC rule 3745-18-06(B)	exemption from SO2 emission limitations
	OAC rule 3745-21-07(G)(1)	3 lbs/hr and 15 lbs/day of organic compounds from liquid organic materials

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall collect and record the following information for each day that a liquid organic material is used in this emissions unit:
 - a. the company identification of each liquid organic material employed;
 - b. the number of gallons of each liquid organic material employed;
 - c. the organic compound content of each liquid organic material employed, in lbs/gallon;
 - d. the total daily organic compound emission rate for all liquid organic materials employed in this emissions unit, in lbs/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 lbs/hr (average).

[Note: The liquid organic material information must be for the liquid organic material as employed, including any thinning solvents added at the emissions unit. Also, the definition of "liquid organic material" is based upon OAC rule 3745-21-01(C).]

IV. 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 lbs/hr, 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 lbs/day, and the organic compound emissions for each such day.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c of this permit.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitations:

3 lbs/hr and 15 lbs/day of organic compounds from liquid organic material

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1. Formulation data or USEPA Method 24 shall be used to determine the organic compound contents of the liquid organic materials.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Mold paste room (P021)
Activity Description: Molds coated with cork dust

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
molds coated with cork dust, at a maximum process rate weight of 181 pounds per hour with no control	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 3745-17-11(B)(1)	0.82 lb/hr of particulates

2. Additional Terms and Conditions

- 2.a Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, from the stack, except as provided by rule.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping 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.

IV. Reporting Requirements

1. The permittee shall submit semiannual 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. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1. If required, compliance shall be demonstrated in accordance with the methods and procedures of OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

0.82 lb/hr 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).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: F - Furnace (P022)
Activity Description: Glass melting furnace - 'F'

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
glass melting furnace "F" with no controls	OAC rule 3745-17-07(A)(1)	See A.I.2.a below.
	OAC rule 3745-17-11(B)(1)	8.6 lbs/hr of particulates
	OAC rule 3745-18-06(E)(2)	63 lbs/hr of sulfur dioxide

2. Additional Terms and Conditions

- 2.a Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, from the stack, except as provided by rule.
- 2.b This emissions unit can be fired with natural gas and #2 fuel oil. However, #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.

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping 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 abnormal 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 abnormal visible emission incident; and
 - e. any corrective actions taken to eliminate the abnormal visible emissions.

III. Monitoring and/or Record Keeping Requirements (continued)

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.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

20% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated through the record keeping requirements of section A.III.1 or, if required, through visible emissions readings taken in accordance with the methods and procedures of OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

8.6 lbs/hr of particulates

Applicable Compliance Method:

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 section A.III.2.

OR

If required, the permittee shall perform emission testing in accordance with the methods and procedures of OAC rule 3745-17-03(B)(10).

1.c Emission Limitation:

63 lbs/hr of sulfur dioxide

Applicable Compliance Method:

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 section A.III.2.

OR

If required, the permittee shall perform emission testing in accordance with the methods and procedures of OAC rule 3745-18-04(E)(1).

V. Testing Requirements (continued)

2. 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 to demonstrate compliance with the allowable mass emission rate(s) for particulates and/or 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 6 of 40 CFR Part 60, Appendix A for particulate and sulfur dioxide emissions, respectively. 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 perform additional test(s) while combusting fuel oil, at the earliest possible date.
 - 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.

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.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Chrome Plating Tank (P024)
Activity Description: Chrome plating of molds

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
hard chrome plating of molds	OAC rule 3745-31-05 (PTI 04-0877) 40 CFR Part 63, Subparts A and N	See A.I.2.a below.

2. Additional Terms and Conditions

- 2.a The permittee shall not allow the concentration of total chromium in the exhaust gases discharged to the atmosphere to exceed 0.03 mg/dscm (1.3x10⁻⁵ gr/dscf).

II. Operational Restrictions

1. At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain any chromium electroplating or anodizing tank, including associated air pollution control devices and monitoring equipment, in a manner consistent with the operation and maintenance plan required by these terms and conditions.
2. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan.
3. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the appropriate Ohio EPA District Office or local air agency, which may include, but is not limited to, monitoring results; review of the operation and maintenance plan, procedures, and records; and inspection of the emission unit. Based on this information, the appropriate Ohio EPA District Office or local air agency may require that the permittee make changes to the operation and maintenance plan if that plan:
 - a. does not address a malfunction that has occurred;
 - b. fails to provide for the operation of the emission units, the air pollution control techniques, or the control system and process monitoring equipment during a malfunction in a manner consistent with good air pollution practices; or
 - c. does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall prepare an operation and maintenance plan to be implemented no later than the date of issuance of this permit. The plan shall be incorporated by reference into the Title V permit and include the following elements:
 - a. The plan shall specify the operation and maintenance criteria for the affected source, the add-on air pollution control device (if such a device is used to comply with the emissions limits), and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of the equipment.
 - b. The O/M plan shall incorporate the following work practice standards:
 - i. visually inspect the device at least once per quarter to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device;
 - ii. visually inspect at least once per quarter the back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist;
 - iii. visually inspect at least once per quarter the ductwork from the tank to the control device to ensure there are no leaks; and
 - iv. perform washdown of the composite mesh-pads in accordance with manufacturer's recommendations.
 - c. If a pitot tube is used for monitoring, the O/M plan shall incorporate the following work practice standards to be performed at least once per quarter:
 - i. backflush with water, or remove from the duct and rinse with fresh water;
 - ii. replace in the duct and rotate 180 degrees to ensure that the same zero reading is obtained; and
 - iii. check pitot tube ends for damage and replace pitot tube if cracked or fatigued.
 - d. The plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur.
 - e. The plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment, and for implementing corrective actions to address such malfunctions.
 - f. If the operation and maintenance plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction at the time the plan is initially developed, the permittee shall revise the operation and maintenance plan within 45 days after such an event occurs.
 - g. If actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan, the permittee shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event, unless the permittee makes alternative reporting arrangements, in advance, with the appropriate Ohio EPA District Office or local air agency.
 - h. The permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the appropriate Ohio EPA District Office or local air agency for the life of the emissions unit. If the operation and maintenance plan is revised, the permittee shall keep previous versions of the plan on record to be made available for inspection, upon request, by the appropriate Ohio EPA District Office or local air agency for a period of five years after each revision to the plan.
 - i. The permittee may use applicable standard operating procedure (SOP) manuals, Occupational Safety and Health Administration (OSHA) plans, or other existing plans to meet the operation and maintenance plan requirements as long as the alternative plans meet the requirements.

III. Monitoring and/or Record Keeping Requirements (continued)

2.
 - a. During the initial performance test, the permittee shall determine the outlet chromium concentration using the methods as described in the "Testing Requirements" section of this permit to comply with the emission limitation through the use of a packed-bed scrubber and composite mesh-pad system. The permittee shall establish as a site-specific operating parameter the pressure drop across the system, setting the value that corresponds to compliance with the applicable emission limitation, using the procedures in the "Testing Requirements" section of this permit.
 - b. The permittee may conduct multiple performance tests to establish a range of compliant pressure drop values, or may set as the compliance value the average pressure drop measured over the three test runs of one performance test and accept plus or minus one inch of water column from this value as the compliant range.
 - c. On and after the date on which the initial performance test is required to be completed under Section 63.7 of 40 CFR Part 63, Subpart A, the permittee shall monitor and record the pressure drop across the composite mesh-pad system once each day that the emissions unit is operating. To be in compliance, the composite mesh-pad system shall be operated within plus or minus one inch of water column of the pressure drop value established during the initial performance test, or shall be operated within the range of compliant values for pressure drop established during multiple performance tests.
3. The permittee shall fulfill all recordkeeping requirements in the General Provisions to 40 CFR Part 63, according to the applicability of Subpart A.
4. The permittee also shall maintain the following records:
 - a. inspection records for the add-on air pollution control device, if such a device is used, and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of this permit have taken place (The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection.);
 - b. records of all maintenance performed on the emissions unit, add-on air pollution control device, and monitoring equipment;
 - c. records of the occurrence, duration, and cause (if known) of each malfunction of process, add-on air pollution control device, and monitoring equipment;
 - d. records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan;
 - e. other records, which may take the form of checklists, necessary to demonstrate consistence with the provisions of the operation and maintenance plan;
 - f. test reports documenting results of all performance tests;

III. Monitoring and/or Record Keeping Requirements (continued)

- g. all measurements as may be necessary to determine the conditions of performance tests;
- h. records of monitoring data that are used to demonstrate compliance with the standard including the date and time the data are collected;
- i. the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the process, add-on air pollution control device, or monitoring equipment;
- j. the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during periods other than malfunction of the process, add-on air pollution control device, or monitoring equipment;
- k. the total process operating time of the emissions unit during the reporting period; and
- l. all documentation supporting the notifications and reports as outlined in the reporting requirements of this permit and sections 63.9 and 63.10 of 40 CFR Part 63, Subpart A.

IV. Reporting Requirements

- 1. The permittee shall fulfill all reporting requirement as outlined in 40 CFR Part 63, Subpart A. These reports shall be made to the appropriate Ohio EPA District Office or local air agency and shall be sent by U.S. mail, fax or by another courier.
 - a. Submittals sent by U.S. mail shall be postmarked on or before the specified date.
 - b. Submittals sent by other methods shall be received by the appropriate Ohio EPA District Office or local air agency on or before the specified date.
- 2. The permittee shall submit to the appropriate Ohio EPA District Office or local air agency an initial notification report no later than July 24, 1995 that contains the following information:
 - a. the name, title, and address of the owner or operator;
 - b. the address (i.e., physical location) of the emissions unit;
 - c. identification of the applicable emission limitations and compliance date;
 - d. a statement of whether the affected emissions unit is located at a major source or at an area source;
 - e. a brief description of each affected emissions unit, including the type of process operation performed;
 - f. the maximum potential cumulative potential rectifier capacity;
 - g. a statement of whether the emissions unit is located at a small or a large, hard chromium facility and whether this will be demonstrated through actual or maximum potential cumulative rectifier capacity; and
 - h. a statement of whether the permittee will limit the maximum potential cumulative rectifier capacity such that the hard chromium electroplating facility is considered small.

IV. Reporting Requirements (continued)

3. The permittee shall submit a Notification of Compliance Status to the appropriate Ohio EPA District Office or local air agency 90 days after the performance test is completed, signed by the responsible official who shall certify its accuracy, attesting to whether the affected emissions unit is in compliance. The notification shall list for each affected emissions unit:
 - a. the applicable emission limitations and the methods that were used to determine compliance with this limitation;
 - b. if a performance test is required, the test report documenting the results of the performance test, which includes the elements required in the Test Requirements section of this permit, including measurements and calculations to support special compliance provisions for multiple emissions units controlled by a common add-on air pollution control device;
 - c. the type and quantity of hazardous air pollutants emitted by the emissions unit reported in mg/dscm or mg/hr if the emissions unit is using the special provisions for multiple emissions units controlled by a common add-on air pollution control device (For emissions units not required to conduct a performance test, the surface tension measurement may fulfill this requirement.);
 - d. for each monitored parameter for which a compliant value was established, the specific operating parameter value, or range of values, that corresponds to compliance with the applicable emission limit;
 - e. the methods that will be used to determine continuous compliance;
 - f. a description of the air pollution control technique used for each emission point;
 - g. a statement that the permittee has completed and has on file the operation and maintenance plan as required by the work practice standards; and
 - h. a statement by the permittee as to whether the emissions unit is in compliance.
4. The permittee shall report to the appropriate Ohio EPA District Office or local air agency the results of any performance test conducted. The report shall be submitted no later than 90 days following the completion of the performance test, and shall be submitted as part of the notification of compliance status report required by this section.
5. The permittee shall prepare an ongoing compliance status report annually (unless a request to reduce frequency of ongoing compliance status reports has been approved) to the appropriate Ohio EPA District Office or local air agency to document the ongoing compliance status of the emissions unit. This report shall include the following:
 - a. the company name and address of the emissions unit;
 - b. an identification of the operating parameter that is monitored for compliance determination;
 - c. the relevant emission limitation for the emissions unit, and the operating parameter value, or range of values, that correspond to compliance with this emission limitation as specified in the Notification of Compliance Status required by this section;
 - d. the beginning and ending dates of the reporting period;
 - e. the total operating time of the emissions unit during the reporting period;
 - f. a summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total emissions unit operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes;
 - g. a certification by a responsible official that the work practice standards in this permit were followed in accordance with the operation and maintenance plan for the emissions unit;

IV. Reporting Requirements (continued)

- h. if the operation and maintenance plan required by this permit was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the reports required by the work practices in this permit;
 - i. a description of any changes in monitoring, processes, or controls since the last reporting period;
 - j. the name, title, and signature of the responsible official who is certifying the accuracy of the report; and
 - k. the date of the report.
- 6.** The permittee shall submit semiannual reports if the following conditions are met:
- a. the total duration of excess emissions is one percent or greater of the total operating time for the reporting period; and
 - b. the total duration of malfunctions of the add-on air pollution control device and monitoring equipment is 5 percent or greater of the total operating time.
- 7.** Once the permittee reports an exceedance, ongoing compliance status reports shall be submitted semiannually until a request to reduce reporting frequency is approved.
- 8.** The appropriate Ohio EPA District Office or local air agency may determine on a case-by-case basis that the summary report shall be completed more frequently and submitted, or that the annual report shall be submitted instead of being retained on site, if these measures are necessary to accurately assess the compliance status of the emissions unit.
- 9.** The permittee who is required to submit ongoing compliance status reports on a semiannual (or more frequent) basis, or is required to submit its annual report instead of retaining it on site, may reduce the frequency of reporting to annual and/or be allowed to maintain the annual report on site if all of the following conditions are met:
- a. for 1 full year (e.g., 2 semiannual or 4 quarterly reporting periods), the ongoing compliance status reports demonstrate that the affected emissions unit is in compliance with the relevant emission limit;
 - b. the permittee continues to comply with all applicable recordkeeping and monitoring requirements of 40 CFR Part 63, Subpart A and this permit; and
 - c. the appropriate Ohio EPA District Office or local air agency does not object to a reduced reporting frequency. The frequency of submitting ongoing compliance status reports may be reduced if the following requirements are met:
 - i. The permittee notifies the appropriate Ohio EPA District Office or local air agency in writing of its intentions to make such a change. The Toledo Division of Environmental Services may review information concerning the facility's previous performance history during the 5-year recordkeeping period prior to the intended change, or the recordkeeping period since the emissions unit's compliance date, whichever is shorter. Records subject to review include performance test results, monitoring data, and evaluations of the permittee's conformance with emission limitations and work practice standards. If the permittee's request is disapproved, the appropriate Ohio EPA District Office or local air agency will notify the permittee in writing within 45 days after receiving notice. This notification will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.
 - ii. If monitoring data show that the emissions unit is not in compliance with the relevant emission limit, the frequency of reporting shall revert to semiannual, and the permittee shall state this exceedance in the ongoing compliance status report for the next reporting period. After demonstrating ongoing compliance with the relevant emission limit for another full year, the permittee may again request approval to reduce the reporting frequency.

V. Testing Requirements

1. Performance test results shall be documented in complete test reports that contain the following information:
 - a. a brief process description;
 - b. sampling location description(s);
 - c. a description of sampling and analytical procedures and any modifications to standard procedures;
 - d. test results;
 - e. quality assurance procedures and results;
 - f. records of operating conditions during testing, preparation of standards, and calibration procedures;
 - g. raw data sheets for field sampling and field and laboratory analyses;
 - h. documentation of calculations; and
 - i. any other information required by the test method.

The test plan shall be made available to the appropriate Ohio EPA District Office or local air agency prior to testing, if requested.

2. If required, the permittee shall use the following test methods to conduct a performance test:
 - a. Method 306 or Method 306A, "Determination of Chromium Emissions From Decorative and Hard Chromium Electroplating and Anodizing Operations" shall be used to determine the chromium concentration from hard or decorative chromium electroplating tanks or chromium anodizing tanks.
 - i. The sampling time and sample volume for each run of Methods 306 and 306A shall be at least 120 minutes and 1.7 dscm (60 dscf), respectively.
 - ii. Methods 306 and 306A allow the measurement of either total chromium or hexavalent chromium emissions. Emissions units using chromic acid baths can demonstrate compliance with the emission limits by measuring either the total chromium or hexavalent chromium concentration. Hence, the hexavalent chromium concentration measured by these methods is equal to the total chromium concentration for the affected operations.
 - b. The California Air Resources Board (CARB) Method 425 may be used to determine the chromium concentration from hard and decorative chromium electroplating tanks and chromium anodizing tanks if the following conditions are met:
 - i. If a colorimetric analysis method is used, the sampling time and volume shall be sufficient to result in 33-66 micrograms of catch in the sampling train.
 - ii. If an Atomic Absorption Graphite Furnace (AAGF) or Ion Chromatography (with a Post-column Reactor (ICPCR) analyses) is used, the sampling time and volume shall be sufficient to result in a sample catch that is 5 to 10 times the minimum detection limit of the analytical method (i.e., 1.0 microgram per liter of sample for AAGF and 0.5 microgram per liter of sample for ICPCR).
 - iii. A minimum of three separate runs must be conducted. The other requirements of Section 63.7 of 40 CFR Part 63, Subpart A must also be met.

V. Testing Requirements (continued)

3. The permittee shall measure the pressure drop across the add-on air pollution control device in accordance with the following guidelines:
 - a. Pressure taps shall be installed at any of the following locations:
 - i. At the inlet and outlet of the control system. The inlet tap should be installed in the ductwork just prior to the control device and the corresponding outlet pressure tap should be installed on the outlet side of the control device prior to the blower or on the downstream side of the blower.
 - ii. On each side of the packed bed within the control system or on each side of each mesh pad within the control system.
 - iii. On the front side of the first mesh pad and back side of the last mesh pad within the control system.
 - b. Pressure taps shall be sited at locations that are:
 - i. As free from pluggage as possible and away from any flow disturbances such as cyclonic demisters.
 - ii. Situated such that no air infiltration at the measurement site will occur that could bias the measurement.
 - c. Pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials.
 - d. Nonreactive plastic tubing shall be used to connect the pressure taps to the device used to measure pressure drop.
 - e. Any of the following pressure gauges can be used to monitor pressure drop: a magnehelic gauge, an included manometer, or a "U" tube manometer.
 - f. Prior to connecting any pressure lines to the pressure gauge(s), each gauge shall be zeroed. No calibration of the pressure gauges is required.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Facility Name: **Libbey Glass Inc.**
Facility ID: **04-48-01-0066**

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