



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
LUCAS COUNTY**

**CERTIFIED MAIL**

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 04-01376**

**Fac ID: 0448010066**

**DATE: 9/30/2004**

Libbey Glass Inc.  
Mike Kirchner  
919 940 Ash Street  
Toledo, OH 43697-0919

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging 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 by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 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 within thirty (30) days after the notice of the Directors 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. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
309 South Fourth Street, Room 222  
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

cc: USEPA

TDES



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**Permit To Install  
Terms and Conditions**

**Issue Date: 9/30/2004  
Effective Date: 9/30/2004**

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**FINAL PERMIT TO INSTALL 04-01376**

Application Number: 04-01376  
Facility ID: 0448010066  
Permit Fee: **\$500**  
Name of Facility: Libbey Glass Inc.  
Person to Contact: Mike Kirchner  
Address: 919 940 Ash Street  
Toledo, OH 43697-0919

Location of proposed air contaminant source(s) [emissions unit(s)]:

**940 Ash Street  
Toledo, Ohio**

Description of proposed emissions unit(s):

**Glass forming machine and annealing Lehr.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Permit To Install General Terms and Conditions

#### 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, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable 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 made to the appropriate Ohio EPA District Office or local air agency. 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. See B.9 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. 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 shall be submitted pursuant to OAC rule 3745-15-06.

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

## **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. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

## **8. 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.

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**Issued: 9/30/2004**

**Facility ID: 0448010066**

## **9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - 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 ORC section 3704.08.
  - 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.

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**10. Permit To Operate Application**

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

**11. Best Available Technology**

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

**12. 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.

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**B. State Only Enforceable Permit To Install General Terms and Conditions**

**1. Compliance Requirements**

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

**2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the 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 state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the 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. 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.

**4. Termination of Permit To Install**

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete

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within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

#### **5. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

#### **6. Public Disclosure**

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

#### **7. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

#### **8. Construction Compliance Certification**

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If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**9. 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.

**C. Permit To Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)**  
**TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
CO	11.56
NO <sub>x</sub>	2.02
PE	0.79
PM <sub>10</sub>	0.83
SO <sub>2</sub>	0.1
VOC	3.81

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**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

### Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

#### A. State and Federally Enforceable Section

#### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
	OAC rule 3745-21-08(B)
	OAC rule 3745-23-06(B)
F019 - G-6 Forming Line with 1.49 tons/hr glass forming machine and lehr with a maximum natural gas/propane input capacity of 2.92 mmBtu/hr and maximum acetylene input capacity of 0.066 mmBtu/hr	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(B)(1)
	OAC rule 3745-17-08(B), (B)(3)
	OAC rule 3745-18-06(E)(2)
	OAC rule 3745-21-07(G)(9)(f)

Applicable Emissions  
Limitations/Control  
Measures

2.64 pounds per hour and  
11.56 tons per year Carbon  
Monoxide (CO) emissions;  
0.46 pound per hour and  
2.02 tons per year Nitrogen  
Oxides (NO<sub>x</sub>) emissions;  
0.18 pound per hour and  
0.79 ton per year Particulate  
Emissions (PE);  
0.19 pound per hour and  
0.83 ton per year PM<sub>10</sub> ;  
0.023 pound per hour and  
0.1 ton per year Sulfur  
Dioxide (SO<sub>2</sub>) emissions;  
0.87 pound per hour and  
3.81 tons per year Volatile  
Organic Compound (VOC)  
emissions; and  
See section A.I.2.b.

See section A.I.2.a.

See section A.I.2.a.

See section A.I.2.a.

exemption for  
non-photochemically  
reactive materials;  
See section A.I.2.e.

See section A.I.2.c.

See section A.I.2.d.

## 2. Additional Terms and Conditions

- 2.a 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.b Visible particulate emissions shall not exceed 5% opacity as a 3-minute average, except for a period of time not to exceed 3 minutes during any 60-minute observation period.
- 2.c The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by complying with all applicable rules.

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

- 2.d The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.
- 2.e Renite CH is a mold release agent used in this process. The permittee has identified Renite CH as a non-photochemically reactive material.

## II. Operational Restrictions

- 1. The permittee shall burn only natural gas, propane, and/or acetylene in this emissions unit.
- 2. The use of photochemically reactive mold release agent in this emissions unit is prohibited.

## III. Monitoring and/or Recordkeeping Requirements

- 1. For each day during which the permittee burns a fuel other than natural gas, propane, and/or acetylene, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- 2. The permittee shall collect and record the following information each month for this emissions

unit.

- a. the company identification of each mold release agent employed;
  - b. whether or not the mold release agent is a photochemically reactive material as defined under OAC rule 3745-21-01(C)(5);
  - c. The number of gallons (or quantity), minus water, of each mold release agent employed;
  - d. the organic compound content in pounds per gallon, excluding water of each mold release agent employed; and
  - e. the total organic compound emission rate from all of the mold release agents (c) x (d), in tons per month.
  - f. the total volume of acetylene burned in this emission unit.
3. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive particulate emissions from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the location and color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

If the daily checks show no visible emissions for 30 consecutive operating days, the required frequency of visible emissions checks may be reduced to weekly (once per week, when the emissions unit is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates visible emissions, the frequency of emissions checks shall revert to daily until such time as there are 30 consecutive operating days of no visible emissions.

#### **IV. Reporting Requirements**

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

than natural gas, propane, and/or acetylene was burned in this emissions unit as fuel. Each report shall be submitted within 30 days after the deviation occurs.

3. The permittee shall submit semiannual written reports that (a) identify all days during which any visible fugitive particulate emissions were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible fugitive 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:

- a. Emission Limitation:

5% 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)

- b. Emission Limitation:

2.64 lb/hr CO emissions

Applicable Compliance Method

Multiply the CO emission factor from Table 1.4-1 of AP-42 Section 1.4 dated 7/1998 (84 lb/mmscf) by the maximum natural gas firing rate of 2,865 ft<sup>3</sup>/hr. Add to this the product of the CO emission factor from AP-42 Section 5.3 for Channel Black Production dated 4/1977 (33,500 lbs/ton) and the estimated yield of carbon product produced based on 5% yield from 0.066 mmBtu/hr of acetylene combusted (7.17E -5 ton C/hr). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 10 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

- c. Emission Limitation:

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**Emissions Unit ID: F019**

11.56 tons/yr CO emissions

Applicable Compliance Method:

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

d. Emission Limitation:

0.18 lb/hr PE

Applicable Compliance Method:

Multiply the PE emission factor from Table 1.5-1 of AP-42 Section 1.4 dated 7/1998 for a maximum propane sulfur concentration of 123 ppm(0.00437 lb/mmBtu) by the maximum propane firing rate (2.92 mmBtu/hr). Add to this the product of the PE emission factor from AP-42 Section 5.3 for Channel Black Production dated 4/1977 (2,300 lbs/ton) and the estimated yield of carbon product produced based on 5% yield from 0.066 mmBtu/hr of acetylene combusted (7.17E -5 ton C/hr ). If required, the permittee shall demonstrate compliance using Method 5 of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

e. Emission Limitation:

0.79 ton/yr PE

Applicable Compliance Method:

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

f. Emission Limitation:

0.19 lb/hr PM<sub>10</sub>

Applicable Compliance Method:

Multiply the PM<sub>10</sub> emission factor from Table 1.4-2 of AP-42 Section 1.4 dated 7/1998 (7.6 lb/mmscf) by the maximum natural gas firing rate of 2,865 ft<sup>3</sup>/hr. Add to this the product of the PE (assume all PE is PM<sub>10</sub>) emission factor from AP-42 Section 5.3 for Channel Black Production dated 4/1977 (2,300 lbs/ton) and the estimated yield of carbon product produced based on 5% yield from 0.066 mmBtu/hr of acetylene combusted (7.17E -5 ton C/hr ). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 201 and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

g. Emission Limitation:

0.83 ton/yr PM<sub>10</sub>

Applicable Compliance Method:

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

h. Emission Limitation:

0.46 lb/hr NO<sub>x</sub> emissions

Applicable Compliance Method:

Multiply the AP-42 NO<sub>x</sub> emission factor from Table 1.5-1 dated 10/1996 (0.153 lb/mmBtu) by the maximum propane firing rate of 2.92 mmBtu/hr. Multiply the NO<sub>x</sub> permittee supplied emission factor of (130 lb/mmscf) by the maximum acetylene firing rate of 45 ft<sup>3</sup>/hr and the ratio of the heating value of acetylene to natural gas (1,470 Btu/scf / 1,020 Btu/scf), and add to this the NO<sub>x</sub> emissions from propane combustion. If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 7E of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

i. Emission Limitation:

2.02 tons/yr NO<sub>x</sub> emissions

Applicable Compliance Method:

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly NO<sub>x</sub> limit constitutes compliance with the annual NO<sub>x</sub> limit.

j. Emission Limitation:

0.023 lb/hr SO<sub>2</sub> emissions

Applicable Compliance Method

Multiply the SO<sub>2</sub> emission factor from Table 1.5-1 of AP-42 Section 1.4 dated 7/1998 for a maximum propane sulfur concentration of 123 ppm(0.0078 lb/mmBtu) by the maximum propane firing rate (2.92 mmBtu/hr). If required, the permittee shall demonstrate compliance using Methods 1 through 4 and 6C of 40 CFR part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

k. Emission Limitation:

0.1 ton/yr SO<sub>2</sub> emissions

**Libbey Glass Inc.**

**PTI Application: 04 01376**

**Issued**

**Facility ID: 0448010066**

Emissions Unit ID: **F019**

**Applicable Compliance Method**

Annual allowable emissions are based on the hourly allowable emission rate multiplied by 8760 hours per year and divided by 2000 pounds/ton. Therefore, compliance with the hourly emission limitation constitutes compliance with the annual SO<sub>2</sub> emission limitation.

**l. Emission Limitation:**

0.87 lb/hr VOC emissions

**Applicable Compliance Method:**

Multiply the VOC emission factor from Table 1.4-2 of AP-42 Section 1.4 dated 7/1998 (5.5 lb/mm scf) by the maximum natural gas firing rate of 2,865 ft<sup>3</sup>/hr. Add to this the product of the VOC emission factor from AP-42 Section 5.3 for Channel Black Production dated 4/1977 (11,500 lbs/ton) and the estimated yield of carbon product produced based on 5% yield from 0.066 mmBtu/hr of acetylene combusted (7.17E -5 ton C/hr ). If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA-approved test methods can be used with prior approval from Ohio EPA.

**m. Emission Limitation:**

3.81 tons/yr VOC emissions

**Applicable Compliance Method:**

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

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 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>
F019 - G-6 Forming Line with 1.49 tons/hr glass forming machine and lehr with a maximum natural gas input capacity of 2.92 mmBtu/hr and maximum acetylene input capacity of 0.066 mmBtu/hr		

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

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**Libbey**

**PTI A**

**Issued: 9/30/2004**

Emissions Unit ID: **F019**

None

**VI. Miscellaneous Requirements**

None