



State of Ohio Environmental Protection Agency

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

**CERTIFIED MAIL**

Street Address:

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

Mailing Address:

Lazarus Gov. Center

**Application No: 01-08228**

**DATE: 9/21/2000**

Holophane  
Tom Kaib  
214 Oakwood Ave  
Newark, OH 43055

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  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

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

CC: USEPA

CDO



**Permit To Install**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**FINAL PERMIT TO INSTALL 01-08228**

Application Number: 01-08228  
APS Premise Number: 0145020003  
Permit Fee: **\$200**  
Name of Facility: Holophane  
Person to Contact: Tom Kaib  
Address: 214 Oakwood Ave  
Newark, OH 43055

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

**214 Oakwood Ave**  
**Newark, Ohio**

Description of proposed emissions unit(s):

**#1 Furnace, borosilicate glass melting. Terms in this permit supercede those identified in PTI 01-3817 issued 11-17-92.**

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.11 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.

## 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.

**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 thirty (30) days after commencing operation of the source(s) covered by this permit.

**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 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 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. 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.

## 5. 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 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.

## 6. 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 are inadequate 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 prove to be inadequate or cannot meet applicable standards.

## 7. 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.

Holophane

PTI Application: **01-08228****Issued: 9/21/2000**Facility ID: **0145020003****8. 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).

**9. 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.

**10. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) 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.

**11. 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>
PM	13.1
SO <sub>2</sub>	0.1
NO <sub>x</sub>	111.7
OC	3.9
CO	2.6

**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>	
P004 - 3 tons/hour (pull rate), gas/oxy fired with electric boost, borosilicate glass melting furnace #1 with a baghouse and low NOx burners. (Terms in this permit supercede those identified in PTI # 01-3817 issued 11/17/92 and modified 4/27/95.)	OAC rule 3745-31-05 (A)(3)	OAC rule 3745-18-06 (D)
		40 CFR Part 60 Subpart CC
		OAC rule 3745-17-07 (A)(1)
		OAC rule 3745-17-11(B)

Holopl

PTI A<sub>1</sub>**Issued: 9/21/2000**

Emissions Unit ID: P004

Applicable Emissions  
Limitations/Control  
Measures

Particulate emissions shall not exceed 3.0 lbs/hr and 13.1 tons/yr.

Sulfur dioxide emissions shall not exceed 0.02 lb/hr and 0.1 ton/yr.

Nitrogen oxide emissions shall not exceed 25.5 lbs/hr and 111.7 tons/yr.

Organic Compound emissions shall not exceed 0.9 lb/hr and 3.9 tons/yr.

Carbon monoxide emissions shall not exceed 0.6 lb/hr and 2.6 tons/yr.

Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

The emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

The emission limitation specified in this rule is less

stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

Particulate emissions shall not exceed 0.5 g/kg of glass pulled.

## 2. Additional Terms and Conditions

- 2.a The sulfur dioxide, carbon monoxide and organic compound hourly and annual emission limitations were established to reflect the potential to emit for this emissions unit. Therefore, monitoring, record keeping and/or reporting requirements are not necessary to ensure compliance with these emission limitations.

## II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 1 to 6 inches of water while the emissions unit is in operation.
2. The permittee shall burn only natural gas in this emissions unit.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from baghouse 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 abnormal visible emission incident; and
  - e. any corrective actions taken to eliminate the abnormal visible emissions.
3. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

#### IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit semiannual written reports which (a) identify all days during which any abnormal visible particulate emissions were observed from the baghouse 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 Ohio EPA, Central District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.
3. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

#### V. Testing Requirements

1. Compliance with the emission limitations specified in Section A.I of these terms and conditions shall be determined in accordance with the following methods:
2. Emission Limitations -  
Particulate emissions shall not exceed 3.0 lbs/hr.

##### Applicable Compliance Method -

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 within 60 days of startup.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for PM.
  - c. The following test method shall be employed to demonstrate compliance with the PM allowable mass emission rate(s): 40 CFR Part 60, Appendix A, Method 5. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.
3. Emission Limitations -  
Particulate emissions shall not exceed 13.1 tons/yr.

Applicable Compliance Method -

Compliance shall be demonstrated by multiplying the results of the most recent stack test (lbs/hr) by the maximum throughput (26,280 tons/yr)(PTI app. 8/00) and dividing by 2000 lbs/ton.

4. Emission Limitations -

Sulfur dioxide emissions shall not exceed 0.02 lb/hr.

Applicable Compliance Method -

Compliance shall be demonstrated by multiplying the maximum throughput of  $2.4 \times 10^4$  ft<sup>3</sup>/hr (PTI app. 8/00) by the emission factor of 0.62 lb SO<sub>2</sub>/mmft<sup>3</sup> (AP-42, 1.14-1, 7/98).

5. Emission Limitations -

Sulfur dioxide emissions shall not exceed 0.1 ton/yr.

Applicable Compliance Method -

Compliance shall be demonstrated by multiplying the maximum throughput of  $210 \times 10^6$  ft<sup>3</sup>/hr (PTI app. 8/00) by the emission factor of 0.62 lb SO<sub>2</sub>/mmft<sup>3</sup> (AP-42, 1.14-1, 7/98) and dividing by 2000 lbs/ton.

6. Emission Limitations -

Nitrogen oxide emissions shall not exceed 25.5 lbs/hr.

Applicable Compliance Method -

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 within 60 days of startup.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for NO<sub>x</sub>.
- c. The following test method(s) shall be employed to demonstrate compliance with the NO<sub>x</sub> allowable mass emission rate(s): 40 CFR Part 60, Appendix A, Method 7E. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.
7. Emission Limitations -  
Nitrogen oxide emissions shall not exceed 111.7 tons/yr.
- Applicable Compliance Method -  
Compliance shall be demonstrated by multiplying the results of the most recent stack test (lbs/hr) by the maximum throughput 26,280 tons/hr (PTI app. 8/00) and dividing by 2000 lbs/ton.
8. Emission Limitations -  
Organic Compound emissions shall not exceed 0.9 lb/hr.
- Applicable Compliance Method -  
Compliance shall be demonstrated by multiplying the emission factor 0.3 lbs OC/hr (AP-42, 11.15, 1/95) by the maximum throughput of 3 tons/hr (PTI app. 8/00).
9. Emission Limitations -  
Organic Compound emissions shall not exceed 3.9 tons/yr.

Emissions Unit ID: P004

## Applicable Compliance Method -

Compliance shall be demonstrated by multiplying the emission factor 0.3 lbs OC/hr (AP-42, 11.15, 1/95) by the maximum throughput of 26,280 tons/hr (PTI app. 8/00) and dividing by 2000 lbs/ton.

## 10. Emission Limitations -

Carbon monoxide emissions shall not exceed 0.6 lb/hr.

## Applicable Compliance Method -

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 within 60 days of startup.
- b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for CO.
- c. The following test method(s) shall be employed to demonstrate compliance with the CO allowable mass emission rate(s): 40 CFR Part 60, Appendix A, Method 10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.

## 11. Emission Limitations -

Carbon monoxide emissions shall not exceed 2.6 tons/yr.

## Applicable Compliance Method -

Compliance shall be demonstrated by multiplying the results of the most recent stack test (lbs/hr) by the maximum throughput 26,280 tons/hr (PTI app. 8/00) and dividing by 2000 lbs/ton.

## 12. Emission Limitations -

Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

## Applicable Compliance Method -

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

13. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Central District Office. The "Intent to Test" notification shall describe in

**Issued: 9/21/2000**

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 Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Central District Office 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 Central District Office 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 Central District Office.

**VI. Miscellaneous Requirements**

1. The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
P004	3 tons/hour (pull rate), gas/oxy fired, borosilicate glass melting furnace #1 with baghouse	Subpart CC

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and
- d. date of performance testing (If required, at least 30 days prior to testing).

Reports are to be sent to:

21

Holophane

PTI Application: 01 00220

**Issued**

Facility ID: **0145020003**

Emissions Unit ID: P004

Ohio Environmental Protection Agency  
DAPC - Air Quality Modeling and Planning  
P.O. Box 1049  
Columbus, OH 43216-1049

and Central District Office, Ohio EPA  
Division of Air Pollution Control  
3232 Alum Creek Drive  
Columbus, Ohio 43207

**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>
P004 - 72 tons/day borosilicate glass melting furnace #1 with baghouse		

**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**

None

**VI. Miscellaneous Requirements**

None

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08228 Facility ID: 0145020003

FACILITY NAME HolophaneFACILITY DESCRIPTION #1 Furnace, borosilicate glass melting. CITY/TWP NewarkSIC CODE 3646 SCC CODE 30501404 EMISSIONS UNIT ID P004EMISSIONS UNIT DESCRIPTION 72 tons/day borosilicate glass melting furnace #1 with baghouseDATE INSTALLED 1/1/01

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter		3.0	13.1	3.0	13.1
PM <sub>10</sub>					
Sulfur Dioxide		0.02	0.1	0.02	0.1
Organic Compounds		0.9	3.9	0.9	3.9
Nitrogen Oxides		25.5	111.7	25.5	111.7
Carbon Monoxide		0.6	2.6	0.6	2.6
Lead					
Other: Air Toxics					

## APPLICABLE FEDERAL RULES:

NSPS? 40 CFR Part 60,

NESHAP?

PSD?

OFFSET POLICY?

Subpart CC

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

**See additional terms and conditions.**IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT?

\$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*?

x

YES

NO

IDENTIFY THE AIR CONTAMINANTS:

NOx

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08228 Facility ID: 0145020003

FACILITY NAME Holophane

FACILITY DESCRIPTION #1 Furnace, borosilicate glass melting. CITY/TWP Newark

**Ohio EPA Permit to Install Information Form**

Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Pam McGraner**, AQM&P, DAPC, Central Office, and electronic files to **airpti@epa.state.oh.us**

Please fill out the following. If the checkbox does not work, replace it with an 'X'

	<u>Electronic</u>	<u>Additional information File Name Convention (your PTI # plus this letter)</u>	<u>Hard Copy</u>	<u>None</u>
<u>Calculations (required)</u>	<input checked="" type="checkbox"/>	0000000c.wpd	<input type="checkbox"/>	
<u>Modeling form/results</u>	<input checked="" type="checkbox"/>	0000000s.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>PTI Application (complete or partial)*</u>	<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>BAT Study</u>	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>Other/misc.</u>	<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input type="checkbox"/>

\* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

**NSR Discussion**

Holophane is a glass manufacturer located in Licking County in the city of Heath. They are proposing to enlarge glass furnace #1 to 72 tons/day. The rebuild qualifies as a Chapter 31 mod. The emission factors used in this permit appear to make the facility trigger Title V permitting for PM and for NOx. The emission factor for NOx is considered extremely inaccurate since the furnace is gas/oxy/electric and Holophane intends to test the furnace shortly after operation begins to determine the actual emissions. Depending upon the results of the testing, Holophane will then either submit a Title V application or a FESOP application.

The calculations for this emission unit are below.

P004: 3 tons/hour (pull rate), gas/oxy fired with electric boost, borosilicate glass melting furnace #1 with a baghouse and low NOx burners.

Assumptions/Emission Factors:

Maximum throughput =

72 tons/day = 144,000 lbs/day  
 3 tons/hr = 6000 lbs/hr  
 26,280 tons/yr = 52,560,000 lbs/yr

PM emissions (uncontrolled) =  
 PM emissions (controlled) =

17.4 lbs/ton of glass pulled (AP-42, 11.15, 1/95)  
 0.5 g/k of glass pulled (40 CFR Part 60, Subpart CC)  
 0.5 g/kg x (2.205 x 10<sup>-3</sup> lb/g) x 1 k/2.205 lb x 2000 lb/ton = 1.0 lb/ton of glass pulled

SO2 emissions =

No sulfur is present in the raw materials so the only SO2 is generated from the combustion of natural gas.  
 210 x 10<sup>6</sup> ft<sup>3</sup>/yr (PTI app. 8/00)  
 [0.6 lb/mm ft<sup>3</sup> (AP-42, 1.14-1, 7/98)] x [1.03 cite

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08228

Facility ID: 0145020003

FACILITY NAME Holophane

FACILITY DESCRIPTION	#1 Furnace, borosilicate glass melting.	CITY/TWP	Newark
			specific sulfur ratio (PTI app. 8/00)] = 0.62 lb/mm ft <sup>3</sup>
NO <sub>x</sub> emissions =		8.5 lbs/ton of glass pulled (AP-42, 11.15, 1/95)	
OC emissions =		0.3 lbs/ton of glass pulled (AP-42, 11.15, 1/95)	
CO emissions =		0.2 lbs/ton of glass pulled (AP-42, 11.15, 1/95)	

## Emission Calculations:

PM: (uncontrolled) 17.4lbs/ton x 3 tons/hr = 52.2 lbs/hr

17.4 lbs/ton x 26,280 tons/yr x 1 ton/2000 lbs = 228.6 tons/yr

PM: (controlled) 1.0 lbs/ton x 3 tons/hr = 3.0 lbs/hr

1.0 lbs/ton x 26,280 tons/yr x 1 ton/2000 lbs = 13.1 tons/yr

SO<sub>2</sub>: 2.4 x 10<sup>4</sup> ft<sup>3</sup>/hr x 0.62 lb/mm ft<sup>3</sup> = 0.02 lb/hr  
 210 x 10<sup>6</sup> ft<sup>3</sup>/yr x 0.62 lb/mm ft<sup>3</sup> x 1 ton/2000 lbs = 0.1 tons/yr

NO<sub>x</sub>: 8.5 lbs/ton x 3 tons/hr = 25.5 lbs/hr  
 8.5 lbs/ton x 26,280 tons/hr x 1 ton/2000 lbs = 111.7 tons/yr

OC: 0.3 lbs/ton x 3 tons/hr = 0.9 lbs/hr  
 0.3 lbs/ton x 26,280 tons/hr x 1 ton/2000 lbs = 3.9 tons/yr

CO: 0.2 lbs/ton x 3 tons/hr = 0.6 lbs/hr  
 0.2 lbs/ton x 26,280 tons/hr x 1 ton/2000 lbs = 2.6 tons/yr

The use of a baghouse and low NO<sub>x</sub> burners are considered BAT.

Modeling conducted for NO<sub>x</sub> indicated that the available increment would not be consumed.

If you have any questions about this permit, please feel free to give me a call at 8-3811.

Thank you,

Adam

Please complete for these type permits ([For PSD/NSR Permit, place mouse over this text](#)):

Synthetic Minor Determination and/or  Netting Determination

Permit To Install ENTER PTI NUMBER HERE

**A. Source Description**

**B. Facility Emissions and Attainment Status**

**NEW SOURCE REVIEW FORM B**

PTI Number: 01-08228

Facility ID: 0145020003

FACILITY NAME Holophane

FACILITY DESCRIPTION #1 Furnace, borosilicate glass melting. CITY/TWP Newark

**C. Source Emissions**

**D. Conclusion**

**PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:**

**NONE**

**Please complete:**

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	13.1
SO2	0.1
NOx	111.7
OC	3.9
CO	2.6