



1/7/2015

Ms. Rachael Lautzenheiser
Owens Brockway Glass Containers - Plant #12
1700 State Street
Zanesville, OH 43701

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0660010007
Permit Number: P0117553
Permit Type: Administrative Modification
County: Muskingum

Certified Mail

Table with 2 columns: Status (No) and Category (TOXIC REVIEW, PSD, SYNTHETIC MINOR TO AVOID MAJOR NSR, CEMS, MACT/GACT, NSPS, NESHAPS, NETTING, MAJOR NON-ATTAINMENT, MODELING SUBMITTED, MAJOR GHG, SYNTHETIC MINOR TO AVOID MAJOR GHG)

Dear Permit Holder:

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

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

How to appeal this permit

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

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

## **How to save money, reduce pollution and reduce energy consumption**

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

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

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

If you have any questions, please contact Ohio EPA DAPC, Southeast District Office at (740)3858501 or the Office of Compliance Assistance and Pollution Prevention at (614)644-3469.

Sincerely,



Erica R. Engel-Ishida, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA  
Ohio EPA-SEDO; West Virginia



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install**

for

**Owens Brockway Glass Containers - Plant #12**

Facility ID:	0660010007
Permit Number:	P0117553
Permit Type:	Administrative Modification
Issued:	1/7/2015
Effective:	1/7/2015





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
Owens Brockway Glass Containers - Plant #12

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## Authorization

Facility ID: 0660010007  
Facility Description: Glass container manufacturing plant.  
Application Number(s): M0002734, M0002977  
Permit Number: P0117553  
Permit Description: This administrative modification of PTI 06-07626 is to update BAT to include PE emissions for EUs P020 and P021, and remove references to OAC rule 3745-23-06 since rule has been rescinded. Administrative permit modification of PTI 06-08068 for P901 is to correct BAT that was updated to be consistent with current Senate Bill 265 guidance.  
Permit Type: Administrative Modification  
Permit Fee: \$0.00  
Issue Date: 1/7/2015  
Effective Date: 1/7/2015

This document constitutes issuance to:

Owens Brockway Glass Containers - Plant #12  
1700 State Street  
Zanesville, OH 43701

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

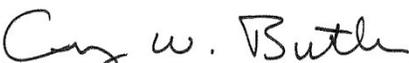
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Southeast District Office  
2195 Front Street  
Logan, OH 43138  
(740)385-8501

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Craig W. Butler  
Director



## Authorization (continued)

**Permit Number:** P0117553  
**Permit Description:** This administrative modification of PTI 06-07626 is to update BAT to include PE emissions for EUs P020 and P021, and remove references to OAC rule 3745-23-06 since rule has been rescinded. Administrative permit modification of PTI 06-08068 for P901 is to correct BAT that was updated to be consistent with current Senate Bill 265 guidance.

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

**Emissions Unit ID:** P017  
 Company Equipment ID: HEST  
 Superseded Permit Number: 06-08068  
 General Permit Category and Type: Not Applicable

**Emissions Unit ID:** P019  
 Company Equipment ID: Refiner A  
 Superseded Permit Number: 06-07626  
 General Permit Category and Type: Not Applicable

**Group Name: Bottle Forming Lines**

<b>Emissions Unit ID:</b>	<b>P020</b>
Company Equipment ID:	A1 Bottle Forming Line
Superseded Permit Number:	06-07626
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P021</b>
Company Equipment ID:	A2 Bottle Forming Line
Superseded Permit Number:	06-07626
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
Owens Brockway Glass Containers - Plant #12  
**Permit Number:** P0117553  
**Facility ID:** 0660010007  
**Effective Date:** 1/7/2015

## **A. Standard Terms and Conditions**



## **1. Federally Enforceable Standard Terms and Conditions**

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

## **2. Severability Clause**

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

## **3. General Requirements**

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.



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

#### **4. Monitoring and Related Record Keeping and Reporting Requirements**

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



- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Southeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
  - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Southeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## **5. Scheduled Maintenance/Malfunction Reporting**

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

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

## **6. Compliance Requirements**

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



local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

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

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

## **7. Best Available Technology**

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



**8. Air Pollution Nuisance**

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

**9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.
- 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 Ohio EPA DAPC, Southeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**10. Applicability**

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

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

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



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

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

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

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

## **12. Permit-To-Operate Application**

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



**13. Construction Compliance Certification**

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

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

**14. Public Disclosure**

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

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

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

**16. Fees**

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

**17. Permit Transfers**

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

**18. Risk Management Plans**

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

**19. Title IV Provisions**

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



**Final Permit-to-Install**  
Owens Brockway Glass Containers - Plant #12  
**Permit Number:** P0117553  
**Facility ID:** 0660010007  
**Effective Date:** 1/7/2015

## **B. Facility-Wide Terms and Conditions**



**Final Permit-to-Install**  
Owens Brockway Glass Containers - Plant #12  
**Permit Number:** P0117553  
**Facility ID:** 0660010007  
**Effective Date:** 1/7/2015

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



**Final Permit-to-Install**  
Owens Brockway Glass Containers - Plant #12  
**Permit Number:** P0117553  
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**Effective Date:** 1/7/2015

## **C. Emissions Unit Terms and Conditions**



**1. P017, HEST**

Hot end surface treatment with a maximum throughput of 10 lbs MBTT/hr controlled by ammonia injection and a baghouse (administrative modification to update BAT to be consistent with SB 265 guidance, correct Chapter 17 requirements, and update the EU ID from P901 to P017; supersedes PTI 06-08068 issued 12/14/06).

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

(1) g)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Volatile organic compound (VOC) emissions shall not exceed 0.52 pound per hour and 2.3 tons per year.  Particulate emissions (PE) shall not exceed 0.46 pound per hour and 2.0 tons per year.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).  See b)(2)a. below
b.	OAC rule 3745-31-05(C), as effective 12/01/06	See b)(2)b. below.
c.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)c. below.
d.	OAC rule 3745-17-07(A)	Visible particulate emissions from the stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
e.	OAC rule 3745-17-11(B)(1)	Total PE shall not exceed 0.551 pounds per hour.  This emission limitation is less stringent than the limitation listed under OAC rule



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		3745-31-05(A)(3), until such time as U.S. EPA approves the December 1, 2006, version of OAC rule 3745-31-05 as part of the State Implementation Plan.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than ten tons per year. However, that rule revision has not yet been approved by 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 revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits/control measures no longer apply.

b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

PTI P0117553 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

- i. Use of a baghouse to control PE emissions by 97% whenever this air contaminant source is in operation.
- ii. PE shall not exceed 2.0 tons per year.

c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

The Best Available Technology (BAT) requirements under OAC 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the uncontrolled potential to emit for VOC is less than 10 tons/yr.

c) Operational Restrictions

(1) The ammonia injection system and baghouse must be used whenever this emissions unit is in operation.



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the flow of ammonia to the HEST system during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The ammonia flow monitoring system must be equipped with an audible and visual alarm system that will activate automatically when flow decreases below the rate established during the most recent emissions test, as required in Section A.V.2 of this permit. The alarm must be located where it is easily recognized by plant operating personnel.

Whenever the low flow alarm is activated, the permittee shall follow the procedures outlined in the permittee's documented corrective action plan. The permittee shall promptly investigate the cause of the alarm. The permittee shall maintain records of the following information for each investigation: the date, time, and duration of each alarm; the date(s) the investigation was conducted; the names of the personnel who conducted the investigation; and the findings and recommendations.

In response to each required investigation to determine the cause of an alarm, the permittee shall take prompt corrective action to bring the operation of the control equipment above the acceptable low flow rate, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action; the date it was completed; the date and time the deviation ended; the total period of time (in minutes) during which there was a deviation; and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The ammonia flow rate associated with the alarm set point is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Southeast District Office. The permittee may request revisions to the alarm set point based upon information obtained during future emission tests that demonstrate compliance with the allowable emission rates for this emissions unit. In addition, approved revisions to the alarm set point will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (2) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;



- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

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

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit semiannual written reports that identify:
  - a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit;
  - b. all days during which any visible particulate emissions were observed from the stack serving this emission unit; and
  - c. any corrective actions taken eliminate the visible 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.

- (3) The permittee shall submit semiannual written reports that identify the following information concerning the operation of the ammonia injection system:
  - a. each period of time when the low flow alarm was activated;
  - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
  - c. an identification of each incident of deviation described in (a) where prompt corrective action was determined to be necessary and was not taken; and



- d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These reports shall be submitted to Ohio EPA Southeast District Office by January 31 and July 31 of each year and shall cover the previous 6-month periods.

f) Testing Requirements

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

- a. Emissions Limitations:

VOC emissions shall not exceed 0.52 pound per hour and 2.3 tons per year.

Applicable Compliance Method

The hourly VOC emissions limitation was determined by multiplying the emissions factor of 0.052 lb VOC/lb MBTT used (0.045 lb/lb from similar source stack test + 15% factor), by maximum throughput of 10 lbs MBTT/hr.

$$(0.052 \text{ lb VOC/lb MBTT})(10 \text{ lbs MBTT/hr}) = 0.52 \text{ lb VOC/hr}$$

If required, VOC emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

The annual VOC emissions limitation was determined by multiplying the hourly emissions rate by 8,760 hours/year, and dividing by 2,000 pounds/ton.

- b. Emissions Limitations:

PE shall not exceed 0.46 pound per hour and 2.0 tons per year.

Applicable Compliance Method:

The hourly PE emissions limitation was determined by multiplying the emissions factor of 1.54 lbs PE/lb MBTT used (best engineering estimate), by maximum throughput of 10 lbs MBTT/hr, then applying 97% control efficiency of baghouse.

$$(1.54 \text{ lb PE/lb MBTT})(10 \text{ lbs MBTT/hr})(1-0.97) = 0.46 \text{ lb PE/hr}$$

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.



The annual PEmissions limitation was determined by multiplying the hourly emission rate above by 8,760 hours/year, and dividing by 2,000 pounds/ton.

c. Emission Limitation

Visible particulate emissions from the stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method

Compliance with the stack visible particulate emissions limitation shall be determined through visible emissions observations performed in accordance with U.S. EPA Method 9.

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTI prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.



**2. P019, Refiner A**

**Operations, Property and/or Equipment Description:**

Refiner A with a maximum rated capacity of 4.63 mmBtu/hr (administrative modification to update BAT requirements to reflect only fugitive emissions, and to remove OAC rule 3745-23-06(B) that no longer pertains to the source; supersedes PTI 06-07626, issued 2/1/2005)

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 1.99 tons per year.  Carbon monoxide (CO) emissions shall not exceed 1.67 tons per year.

(2) Additional Terms and Conditions

- a. The hourly and annual emissions limitations were established to reflect the potential to emit of this emissions unit. Therefore, it is not necessary to establish record keeping and reporting requirements to ensure compliance with these limitations.
- b. Installation and operation of the emissions units included in this PTI (P019, P020, and P021) was contingent upon the permanent shutdown of the following sources: Line A Refiner (Z035); Line A Forehearth (Z037, Z038, Z039, and Z040); Line A Swabbing (Z018, Z019, Z020, and Z021); and Line A Lehr (Z027, Z028, Z029, Z030). The net change in emissions as a result of this equipment shutdown and installation is as follows:

	Proposed Emissions	Existing Sources	Net
<u>Pollutant</u>	<u>Units P019, P020, P021</u>	<u>Z018-21, Z027-30, Z035, and Z037-40*</u>	<u>Increase</u>
PM-10	18.63 TPY	6.51 TPY	+12.12 TPY



\* Based upon the actual average emissions emitted during the years 2002 and 2003.

As a result of the net change in emissions, the proposed new source installation was not a major modification and the permittee has "netted out" of Federal Prevention of Significant Deterioration requirements. The emissions units (Z018, Z019, Z020, Z021, Z027, Z028, Z029, Z030, Z035, Z037, Z038, Z039, and Z040) were permanently shut down on April 25, 2005.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

(2) Prior to startup of emissions units P019, P020, and P021, the permittee was required to submit a report documenting the shutdown dates for Z018-21, Z027-30, Z035, and Z037-40. This report was submitted on July 8, 2005.

f) Testing Requirements

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

a. Emissions Limitation:

NO<sub>x</sub> emissions shall not exceed 1.99 TPY.

Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying the emission factor of 0.098 lbNO<sub>x</sub>/million Btu (AP-42 Table 1.4-1, 07/98) by the maximum burner rating of the refiner (4.63 million Btu/hr).

Compliance with the annual emission limitation shall be demonstrated by multiplying the hourly emission rate by the maximum operating schedule of 8,760 hrs/yr, and dividing by 2,000 lbs/ton.

b. Emissions Limitation:

CO emissions shall not exceed 1.67 TPY.



Applicable Compliance Method:

Compliance with the hourly emission limitation shall be determined by multiplying the emission factor of 0.082 lb CO/million Btu (AP-42 Table 1.4-1, 07/98) by the maximum burner rating of the refiner (4.63 million Btu/hr).

Compliance with the annual emission limitation shall be demonstrated by multiplying the hourly emission rate by the maximum operating schedule of 8,760 hrs/yr, and dividing by 2,000 lbs/ton.

g) Miscellaneous Requirements

- (1) None.



**3. Emissions Unit Group -Bottle Forming Lines: P020 and P021**

EU ID	Operations, Property and/or Equipment Description
P020	Bottle forming line A1including forehearth with a maximum rated capacity of 2.736 mmBtu/hr, swabbing operation with a maximum capacity of 2.06 lbs/hr, and annealing lehr with a maximum rated capacity of 4.0 mmBtu/hr (administrative modification to update BAT requirements to reflect only fugitive emissions, remove the lbs/hr due to fugitive emissions only, and to remove rules OAC 3745-17-07(A), 3745-17-11(B) and 3745-23-06(B) that do not or no longer pertain to the source; supersedes PTI 06-07626, issued 2/1/2005)
P021	Bottle forming line A2including forehearth with a maximum rated capacity of 2.736 mmBtu/hr, swabbing operation with a maximum capacity of 2.06 lbs/hr, and annealing lehr with a maximum rated capacity of 4.0 mmBtu/hr (administrative modification to update BAT requirements to reflect only fugitive emissions, remove the lbs/hr due to fugitive emissions only, and to remove rules OAC 3745-17-07(A), 3745-17-11(B) and 3745-23-06(B) that do not or no longer pertain to the source; supersedes PTI 06-07626, issued 2/1/2005)

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) and particulate matter less than 10 micrometers in diameter (PM <sub>10</sub> ) emissions shall not exceed 9.24 tons per year.  Nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 2.89 tons per year.  Carbon monoxide (CO) emissions shall not exceed 2.43 tons per year.  Visible emissions of fugitive dust from this emissions unit shall not exceed twenty percent opacity as a three-minute average.  Best available control measures that are



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		sufficient to minimize or eliminate visible emissions of fugitive dust (See b)(2)a. through b)(2)d.).
b.	OAC rules 3745-17-07(B) and 3745-17-08(B)	See b)(2)e. below.

(2) Additional Terms and Conditions

- a. The bottle forming line operations that are covered by this permit and subject to the following requirements are listed below:
  - Forehearth
  - Forming machines
  - Swabbing
  - Annealing Lehr
- b. The permittee shall employ best available control measures for the above-identified bottle forming line operations for the purpose of ensuring compliance with the above-mentioned applicable requirements.
- c. The installation and use of hoods, fans, and/or other equipment to adequately enclose, contain, capture, vent, and control fugitive dust from this emissions unit shall meet the following requirements:
  - i. the collection efficiency shall be sufficient to minimize or eliminate visible emissions of fugitive dust at the point(s) of capture to the extent possible with good engineering design.
- d. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the requirements of OAC rule 3745-31-05.
- e. This emissions unit is not located within areas identified in "Appendix A" of OAC rule 3745-17-08 (it is located in Muskingum County, but not within the City of Zanesville). Therefore, the requirements of OAC rules 3745-17-08(B) and 3745-17-07(B) do not apply to this emissions unit.
- f. The annual emissions limitations were established to reflect the potential to emit of this emissions unit. Therefore, it is not necessary to establish record keeping and reporting requirements to ensure compliance with these limitations.
- g. Installation and operation of the emissions units included in this PTI (P019, P020, and P021) was contingent upon the permanent shutdown of the following sources: Line A Refiner (Z035); Line A Forehearths (Z037, Z038, Z039, and Z040); Line A Swabbing (Z018, Z019, Z020, and Z021); and Line A Lehrs (Z027, Z028, Z029, Z030). The net change in emissions as a result of this equipment shutdown and installation is as follows:



<u>Pollutant</u>	<u>Proposed Emissions</u>		<u>Existing Sources</u>	<u>Net Increase</u>
	<u>Units</u>	<u>P019, P020, P021</u>	<u>Z018-21, Z027-30, Z035, and Z037-40*</u>	
PM-10	18.63	TPY	6.51 TPY	+12.12 TPY

\* Based upon the actual average emissions emitted during the years 2002 and 2003.

As a result of the net change in emissions, the proposed new source installation was not a major modification and the permittee has "netted out" of Federal Prevention of Significant Deterioration requirements. The emissions units (Z018, Z019, Z020, Z021, Z027, Z028, Z029, Z030, Z035, Z037, Z038, Z039, and Z040) were permanently shut down on April 25, 2005.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible emissions of fugitive dust 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 emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

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



e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit semiannual written reports that identify:
  - a. all days during which any visible emissions of fugitive dust were observed from the egress points (i.e., Robertson Ventilator, building windows, doors, roof monitors, etc.) serving this emissions unit; and
  - b. any corrective actions taken to minimize or eliminate the visible particulate emissions from visible emissions of fugitive dust.

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.

- (3) Prior to startup of emissions units P019, P020, and P021, the permittee was required to submit a report documenting the shutdown dates for Z018-21, Z027-30, Z035, and Z037-40. This report was submitted on July 8, 2005.

f) Testing Requirements

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

a. Emissions Limitation:

PE and PM<sub>10</sub> emissions shall not exceed 9.24 tons per year.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the hourly emission rate by the maximum operating schedule of 8,760hrs/yr, and dividing by 2,000 lbs/ton. The hourly emission rate is determined by the following one-time calculation based on the emissions factor in AP-42 Section 1.4 (7/98) and the company- supplied emission factor of 1 lb PM<sub>10</sub>/lb swabbing material used:

$$\begin{aligned} \text{PM}_{10} \text{ allowable lb/hr} &= \text{Forehearth A1} + \text{Forming Machine A1} + \text{Annealing Lehr A1} \\ &= [(\text{PM}_{10} \text{ EF})(\text{Max forehearth burner rating}) + (\text{PM}_{10} \text{ EF})(\text{Max swabbing material usage}) + (\text{PM}_{10} \text{ EF})(\text{Max annealing lehr burner rating})] \\ &= [(0.0075 \text{ lb/million Btu})(2.736 \text{ million Btu/hr}) + (1 \text{ lb/lb swabbing material})(2.06 \text{ lbs swabbing material/hr}) + (0.0075 \text{ lb/million Btu})(4.0 \text{ million Btu/hr})] \\ &= 2.11 \text{ lbs PM}_{10}/\text{hr} \end{aligned}$$

$$2.11 \text{ lbs/hr} * 8,760 \text{ hrs/yr} = 18,483.6 \text{ lbs/yr} / 2,000 \text{ lbs/ton} = 9.24 \text{ tons/yr}$$



b. Emissions Limitation:

NO<sub>x</sub> emissions shall not exceed 2.89 tons per year.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the hourly emission rate by the maximum operating schedule of 8,760 hrs/yr, and dividing by 2,000 lbs/ton. The hourly emission rate is determined by the following one-time calculation based on the emission factor in AP-42 Section 1.4 (7/98):

$$\begin{aligned} \text{NO}_x \text{ allowable lb/hr} &= \text{Forehearth A1} + \text{Annealing Lehr A1} \\ &= [(\text{NO}_x \text{ EF})(\text{Max forehearth burner rating}) + (\text{NO}_x \text{ EF})(\text{Max annealing Lehr burner rating})] \\ &= [(0.098 \text{ lb/million Btu})(2.736 \text{ million Btu/hr}) + (0.098 \text{ lb/million Btu})(4.0 \text{ million Btu/hr})] \\ &= 0.66 \text{ lbNO}_x/\text{hr} \end{aligned}$$

$$0.66 \text{ lb/hr} * 8,760 \text{ hrs/yr} = 5,781.6 \text{ lbs/yr} / 2,000 \text{ lbs/ton} = 2.89 \text{ tons/yr}$$

c. Emissions Limitation:

CO emissions shall not exceed 2.43 tons per year.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated by multiplying the hourly emission rate by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. The hourly emission rate is determined by the following one-time calculation based on the emission factor in AP-42 Section 1.4 (7/98):

$$\begin{aligned} \text{CO allowable lb/hr} &= \text{Forehearth A1} + \text{Annealing Lehr A1} \\ &= [(\text{CO EF})(\text{Max forehearth burner rating}) + (\text{CO EF})(\text{Max annealing Lehr burner rating})] \\ &= [(0.082 \text{ lb/million Btu})(2.736 \text{ million Btu/hr}) + (0.082 \text{ lb/million Btu})(4.0 \text{ million Btu/hr})] \\ &= 0.555 \text{ lb CO/hr} \end{aligned}$$

$$0.555 \text{ lb/hr} * 8,760 \text{ hrs/yr} = 4,818 \text{ lbs/yr} / 2,000 \text{ lbs/ton} = 2.43 \text{ tons/yr}$$

d. Emission Limitation:

Visible emissions of fugitive dust from this emissions unit shall not exceed twenty percent opacity as a three-minute average.



**Final Permit-to-Install**  
Owens Brockway Glass Containers - Plant #12  
**Permit Number:** P0117553  
**Facility ID:** 0660010007  
**Effective Date:** 1/7/2015

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Method 9 of 40 CFR Part 60, Appendix A.

- g) Miscellaneous Requirements
  - (1) None.