

**Synthetic Minor Determination and/or**  **Netting Determination**

Permit To Install number **01-12015**

**A. Source Description**

Owens Corning is an existing facility located near Mt. Vernon, Ohio. They manufacture unbonded roll insulation. They currently operate under air permit-to-install (PTI) number 01-6653 issued January 15, 1997.

**B. Facility Emissions and Attainment Status**

This Owens Corning plant is located in Knox County which is designated attainment for particulate(PE), sulfur dioxide(SO<sub>x</sub>), carbon monoxide(CO), and nitrogen oxides(NO<sub>x</sub>), and is non-attainment for ozone. Current facility allowable emissions are 50.1 tons per year (TPY) of PE, 9.9 TPY of OC, and 2.7 TPY of NO<sub>x</sub>. Owens Corning is applying for this PTI to change their product to an unbonded loose fill insulation. Compliance with this air PTI will ensure this facility operates as a minor stationary source.

**C. Source Emissions**

Owens Corning will install several new processes and modify some existing processes in order to produce the new insulation product. The permit also states that Owens Corning will shutdown the current insulation manufacturing operations that will not be modified for future use, prior to construction of the new processes.

This is a modification to air PTI number 01-01284 issued 9/20/2005. After starting construction, they have decided to make some changes to the emission control. These changes will have no effect on the allowable emissions, as determined in the original application.

All the new emission units and modified emission units will be limited to the following emission rates by this air PTI: PE, 85.8 TPY; SO<sub>2</sub>, 8.8 TPY; NO<sub>x</sub>, 7.9 TPY; CO, 42.7 TPY; and VOC, 36.5 TPY.

**D. Conclusion**

Owens Corning will be limited to emissions of less than 100 TPY of all criteria pollutants on a potential to emit basis by this synthetic minor permit. This will assure the facility remains below the 100 TPY threshold level of Title V permitting, and will be considered a minor source with respect to Prevention of Significant Deterioration and New Source Review applicability. The furnaces being installed are all-electric melters and therefore New Source Performance Standards, Subpart CC do not apply.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL  
KNOX COUNTY**

**CERTIFIED MAIL**

Street Address:

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

Mailing Address:  
Lazarus Gov.  
Center

**Application No: 01-12015**

**Fac ID: 0142010065**

**DATE: 2/9/2006**

Owens Corning  
Frank Kristie  
One Owens Corning Parkway 400 Case Avenue Bldg 39  
Newark, OH 43058-3012

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$800** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

*Michael W. Ahern*

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

CC: USEPA

CDO

**KNOX COUNTY**

**PUBLIC NOTICE**

**ISSUANCE OF DRAFT PERMIT TO INSTALL 01-12015 FOR AN AIR CONTAMINANT SOURCE FOR  
Owens Corning**

On 2/9/2006 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Owens Corning**, located at **100 Blackjack Road, Mount Vernon**, Ohio.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 01-12015:

**Glass making systems and feed to channels.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Isaac Robinson, Ohio EPA, Central District Office, 3232 Alum Creek Drive, Columbus, OH 43207-3417  
[(614)728-3778]



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 01-12015**

Application Number: 01-12015  
Facility ID: 0142010065  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Owens Corning  
Person to Contact: Frank Kristie  
Address: One Owens Corning Parkway 400 Case Avenue Bldg 39  
Newark, OH 43058-3012

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

**100 Blackjack Road  
Mount Vernon, Ohio**

Description of proposed emissions unit(s):

**Glass making systems and feed to channels.**

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

Owens Corning  
PTI Application: 01-12015  
Issued: To be entered upon final issuance

Facility ID: 0142010065

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

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

#### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

#### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon

**Owens Corning****Facility ID: 0142010065****PTI Application: 01-12015****Issued: To be entered upon final issuance**

the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

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

**7. Air Pollution Nuisance**

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

**8. 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.

**9. Construction of New Sources(s)**

**Owens Corning**  
**PTI Application: 01-12015**  
**Issued: To be entered upon final issuance**

**Facility ID: 0142010065**

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

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

#### **10. 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.

#### **11. Applicability**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

Owens Corning  
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**12. 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.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

**14. 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.

**15. 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.

**B. 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

Pollutant

Tons Per Year

Owens Corning  
 PTI Application: 01-12015  
 Issue:

Facility ID: 0142010065

Emissions Unit ID: P004

Nitrogen Oxides (NOx)	7.88
Carbon Dioxide (CO)	42.65
Particulate Emissions (PE)	85.84
Volatile Organic Compound (VOC)	36.49
Sulfur Dioxide (SOx)	8.8

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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 - Batch Mixer and Scale Hoppers No. 1 and No. 2 controlled by a baghouse	OAC rule 3745-17-07(A)(1)  OAC rule 3745-31-05(A)(3)
(Terms in this permit supercede those identified in PTI 01-01284 issued 09/20/05)	OAC rule 3745-17-11

Applicable Emissions  
Limitations/Control Measures

OAC rule 3745-31-05(C)

Particulate emissions (PE) shall not exceed 0.07 pound per hour and 0.30 ton/year.

All PE are considered PM-10.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-31-05(C).

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.

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

See A.2.a.

See A.2.b.

Issued: To be entered upon final issuance

## **2. Additional Terms and Conditions**

- 2.a** This emissions unit's uncontrolled PE are less than 10 pounds per hour, therefore, this emissions unit is exempt from the requirements of OAC rule 3747-17-11 per OAC rule 3745-17-11(A)(2)(a)(ii).
- 2.b** The permittee shall limit particulate emissions from emissions units P004, P006, P030, P031, P032, P033, P034, and P037 to 85.84 tons per year. This is based upon the maximum potential to emit for these emission units.

## **B. Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the normal operating range established in Section D.4, while the emissions unit is in operation.

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall 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) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, compliance with the mass emission limitation and/or visible emission limitation shall be determined by performing

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**Owen**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: **P004**

mass emission tests and/or visible emission readings, using USEPA approved methods and procedures.

**Owen****PTI A**Emissions Unit ID: **P004****Issued: To be entered upon final issuance****D. Reporting Requirements**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in Section B.1 above. The report shall include a copy of such record and shall be sent to the Director (the Ohio EPA Central District Office) following the end of the quarter.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Terms and Conditions, Section A.2.b of this permit.
3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit within 90 days of start-up, documentation of the determined pressure drop normal operating range, in inches of water, for the baghouse.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A. of these terms and condition shall be determined in accordance with the following method(s):

- a. Emission Limitation: limit for visible particulate emissions- twenty (20) percent opacity, as a six-minute average.

Applicable Compliance Method:

If required pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

- b. Emission Limitation: 0.07 lb/hr and 0.30 ton/yr PE.

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, and the maximum baghouse air flow rate, 400 cfm.

Emissions Unit ID: P004

$$E(\text{PE}) = 0.02 \text{ gr/scf} \times 400 \text{ cf/min} \times 60 \text{ min/hr} \times 1 \text{ lb/7000gr} = 0.07 \text{ lb/hr.}$$

Annual emissions are determined by multiplying the hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton.

If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly particulate emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, Appendix A, Method 5 and 40 CFR Part 51, Appendix M, Method 202.

#### F. Miscellaneous Requirements

1. The permittee shall permanently shutdown emission units P002, P003, P007, P008, P009, P010, P012, P016, P017, P026, P027, and P028, previously permitted in PTI No. 01-6653, prior to the installation or modification of emission units P030, P004, P006, P031, P032, P033, P034, and P037, which are contained in this permit to install.
2. The following Terms and Conditions have been incorporated into this permit in order to establish federally enforceable limitations on potential to emit, pursuant to OAC rule 3745-31-05(C) : Part II, Sections A. through F.

Owen  
PTI A

Emissions Unit ID: P006

Issued: To be entered upon final issuance

**PART III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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>	
P006 - Batch Ingredient Transporter controlled by a baghouse  (Terms in this permit supercede those identified in PTI 01-01284 issued 09/20/05)	OAC rule 3745-31-05(A)(3)	OAC rule 3745-31-05(C)
	OAC rule 3745-17-07(A)(1)	
	OAC rule 3745-17-11	

**Owen  
PTI A**

Emissions Unit ID: **P006**

**Issued: To be entered upon final issuance**

Applicable Emissions  
Limitations/Control  
Measures

3745-31-05(A)(3).

See A.2.a.

Particulate emissions (PE) shall not exceed 0.07 pound per hour and 0.30 ton/year.

See A.2.b.

All PE are considered PM-10.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-31-05(C).

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule

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**Owen**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: **P006**

Issued: To be entered upon final issuance

## 2. Additional Terms and Conditions

- 2.a** This emissions unit's uncontrolled PE are less than 10 pounds per hour, therefore, this emissions unit is exempt from the requirements of OAC rule 3747-17-11 per OAC rule 3745-17-11(A)(2)(a)(ii).
- 2.b** The permittee shall limit particulate emissions from emissions units P004, P006, P030, P031, P032, P033, P034, and P037 to 85.84 tons per year. This is based upon the maximum potential to emit for these emission units.

## B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the normal operating range established in Section D.4, while the emissions unit is in operation.

## C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall 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) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, compliance with the mass emission limitation and/or visible emission limitation shall be determined by

**Owens Corning**  
**PTI Application: 01-12015**  
**Issue**

**Facility ID: 0142010065**

Emissions Unit ID: **P006**

performing mass emission tests and/or visible emission readings, using USEPA approved methods and procedures.

**Owen****PTI A**Emissions Unit ID: **P006****Issued: To be entered upon final issuance****D. Reporting Requirements**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in Section B.1 above. The report shall include a copy of such record and shall be sent to the Director (the Ohio EPA Central District Office) following the end of the quarter.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Terms and Conditions, Section A.2.b of this permit.
3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit within 90 days of start-up, documentation of the determined pressure drop normal operating range, in inches of water, for the baghouse.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A. of these terms and condition shall be determined in accordance with the following method(s):

- a. Emission Limitation: limit for visible particulate emissions- twenty (20) percent opacity, as a six-minute average.

Applicable Compliance Method:

If required pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC Rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

- b. Emission Limitation: 0.07 lb/hr and 0.30 ton/yr PE

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, and the maximum baghouse air flow rate, 400 cfm.

Owens Corning  
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Facility ID: 0142010065

Emissions Unit ID: P006

$$E(\text{PE}) = 0.02 \text{ gr/scf} \times 400 \text{ cf/min} \times 60 \text{ min/hr} \times 1 \text{ lb/7000gr} = 0.07 \text{ lb/hr.}$$

Annual emissions are determined by multiplying the hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton.

#### **F. Miscellaneous Requirements**

1. The permittee shall permanently shutdown emission units P002, P003, P007, P008, P009, P010, P012, P016, P017, P026, P027, and P028, previously permitted in PTI No. 01-6653, prior to the installation or modification of emission units P030, P004, P006, P031, P032, P033, P034, and P037, which are contained in this permit to install.
2. The following Terms and Conditions have been incorporated into this permit in order to establish federally enforceable limitations on potential to emit, pursuant to OAC rule 3745-31-05(C) : Part II, Sections A. through F.

**PART III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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>
P030 - New Raw Material Silo with dust collector  (Terms in this permit supercede those identified in PTI 01-01284 issued 09/20/05)	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 0.446 pound per hour and 0.34 ton/year.  All PE are considered PM-10.  The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-31-05(C).
	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the exhaust stack(s) serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC Rule 3745-31- 05(C)	See A.2.a.

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**Owen**

**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: **P030**

Issued: To be entered upon final issuance

## 2. Additional Terms and Conditions

- 2.a The permittee shall limit particulate emissions from emissions units P004, P006, P030, P031, P032, P033, P034, and P037 to 85.84 tons per year. This is based upon the maximum potential to emit for these emission units.

## B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the normal operating range established in Section D.4, while the emissions unit is in operation.

## C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain equipment to monitor the pressure drop across the dust collector(s) 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) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, compliance with the mass emission limitation and/or visible emission limitation shall be determined by performing mass emission tests and/or visible emission readings, using USEPA approved methods and procedures.

3. The permittee shall collect and record the following information for each month for this

emissions unit:

- a. the maximum number of deliveries;
- b. the maximum number of operating cycles; and
- c. a yearly summation of a. and b.

#### D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in Section B.1 above. The report shall include a copy of such record and shall be sent to the Director (the Ohio EPA Central District Office) following the end of the quarter.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Terms and Conditions, Section A.2.b of this permit.
3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit within 90 days of start-up, documentation of the determined pressure drop normal operating range, in inches of water, for the baghouse. to ensure compliance with the above-mentioned applicable requirements.

#### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A. of these terms and condition shall be determined in accordance with the following method(s):
  - a. Emission Limitation: limit for visible particulate emissions- twenty (20) percent opacity, as a six-minute average.

Applicable Compliance Method:

If required pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC Rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

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- b. Emission Limitation: 0.446 lb/hr PE (based on depressurization)

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, and the maximum baghouse air flow rate, 2600 cfm.

$$E(\text{PE}) = 0.02 \text{ gr/scf} \times 2600 \text{ cf/min} \times 60 \text{ min/hr} \times 1 \text{ lb/7000gr} = 0.446 \text{ lb/hr.}$$

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- c. Emission Limitation: 0.34 ton/yr PE

Applicable Compliance Method:

Yearly compliance shall be based on an annual calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, an 800 cfm air flow that lasts 2 hours for filling , a 2,600 cfm airflow that lasts 5 seconds for depressurization, an 800 cfm air flow that lasts 5 minutes for transfer, and a 1500 cfm air flow that lasts 1.5 minutes for purging.

Annual emissions are determined by multiplying silo filling air flow volume times the loading factor times the maximum yearly deliveries, adding the transfer air flow volume multiplied by loading factor times the maximum yearly material transfers and dividing by 2000 lbs/ton.

$$PE = [(96217 \text{ cf/deliveries} \times 0.02 \text{ gr/cf} \times \text{maximum number of deliveries per year}) + (6250 \text{ cf/transfer cycle} \times 0.02 \text{ gr/cf} \times \text{maximum number of operating cycles per year})] \times 1 \text{ lb/7000 gr} \times 1 \text{ ton/2000 lbs.}$$

## F. Miscellaneous Requirements

1. The permittee shall permanently shutdown emission units P002, P003, P007, P008, P009, P010, P012, P016, P017, P026, P027, and P028, previously permitted in PTI No. 01-6653, prior to the installation or modification of emission units P030, P004, P006, P031, P032, P033, P034, and P037, which are contained in this permit to install.
2. The following Terms and Conditions have been incorporated into this permit in order to establish federally enforceable limitations on potential to emit, pursuant to OAC rule 3745-31-05(C) : Part II, Sections A. through F.

**PART III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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>
P031 - Mixed Batch Transfer controlled by a baghouses vent indoors  (Terms in this permit supercede those identified in PTI 01-01284 issued 09/20/05)	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 0.13 pound per hour and 0.56 ton/year.  All PE are considered PM-10.  Visible PE shall not exceed twenty-percent opacity as a three minute average at the associated egress points, north wall upper louvers, north wall lower louvers, south wall upper louvers, and south wall lower louvers.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C).
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC Rule 3745-31-05(C)	See A.2.a

**2. Additional Terms and Conditions**

- 2.a The permittee shall limit particulate emissions from emissions units P004, P006,

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Emissions Unit ID: **P031**

P030, P031, P032, P033, P034, and P037 to 85.84 tons per year. This is based upon the maximum potential to emit for these emission units.

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## **B. Operational Restrictions**

1. The pressure drop across the baghouses shall be maintained within the normal operating range established in Section D.4, while the emissions unit is in operation.

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall operate and maintain equipment to monitor the pressure drop across the baghouses 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) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouses on a daily basis.

## **D. Reporting Requirements**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in Section B.1 above. The report shall include a copy of such record and shall be sent to the Director (the Ohio EPA Central District Office) following the end of the quarter.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Terms and Conditions, Section A.2.b of this permit.
3. The permittee shall submit within 90 days of start-up, documentation of the determined pressure drop normal operating range, in inches of water, for the baghouses.

## **E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A. of these terms and condition shall be determined in accordance with the following method(s):
  - a. Emission Limitation: limit for visible particulate emissions- twenty (20) percent opacity, as a three-minute average at the associated egress points, north wall upper louvers, north wall lower louvers, south wall upper louvers, and south wall lower louvers.

Applicable Compliance Method:

If required pursuant to OAC rule 3745-15-04, compliance shall be determined by

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visible emission evaluations performed at the associated egress points, north wall upper louvers, north wall lower louvers, south wall upper louvers, and south wall lower louvers, in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

Emissions Unit ID: P031

- b. Emission Limitation: 0.13 lb/hr and 0.56 ton/yr PE.

Applicable Compliance Method:

Hourly compliance shall be based on a one time calculation by using vendor provided grain loading emission factor, 0.02 gr/scf, and the maximum baghouse air flow rate, 250 cfm.

$$E(PE) = 0.02 \text{ gr/scf} \times 250 \text{ cf/min} \times 60 \text{ min/hr} \times 1 \text{ lb/7000gr} \times 3 \text{ units} = 0.13 \text{ lb/hr.}$$

Annual emissions are determined by multiplying the hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton.

If required pursuant to OAC rule 3745-15-04, the permittee shall demonstrate compliance with the hourly particulate emission limit of this permit by means of physical testing of the effluent from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and 40 CFR Part 51, Appendix M, Method 202.

## F. Miscellaneous Requirements

1. The permittee shall permanently shutdown emission units P002, P003, P007, P008, P009, P010, P012, P016, P017, P026, P027, and P028, previously permitted in PTI No. 01-6653, prior to the installation or modification of emission units P030, P004, P006, P031, P032, P033, P034, and P037, which are contained in this permit to install.
2. The following Terms and Conditions have been incorporated into this permit in order to establish federally enforceable limitations on potential to emit, pursuant to OAC rule 3745-31-05(C) : Part II, Sections A. through F.

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Emissions Unit ID: P032

**PART III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. 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>	
P032 - Glass Making System and Feed to Channel No. 1 controlled by a baghouse	OAC rule 3745-31-05(A)(3)	OAC rule 3745-18-06
(Terms in this permit supercede those identified in PTI 01-01284 issued 09/20/05)		OAC rule 3745-31- 05(C)
	OAC rule 3745-17-07(A)(1)	
	OAC rule 3745-17-11	

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Applicable Emissions  
Limitations/Control  
Measures

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

Particulate emissions (PE) shall not exceed 0.473 pound per hour and 2.07 tons/year.

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

All PE are considered PM-10.

See A.2.a.

Sulfur dioxide emissions (SO<sub>2</sub>) shall not exceed 0.14 pound per hour and 0.62 ton/year.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-31-05(C).

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.

The emission limitation

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**2. Additional Terms and Conditions**

- 2.a** The permittee shall limit particulate emissions from emissions units P004, P006, P030, P031, P032, P033, P034, and P037 to 85.84 tons per year. This is based upon the maximum potential to emit for these emission units.

**B. Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range either established during the performance test while the emissions unit is in operation or determined by the permittee in agreement with the Ohio EPA .

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

1. The permittee shall 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) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, compliance with the mass emission limitation and/or visible emission limitation shall be determined by performing mass emission tests and/or visible emission readings, using USEPA approved methods and procedures.

#### D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in Section B.1 above. The report shall include a copy of such record and shall be sent to the Director (the Ohio EPA Central District Office) following the end of the quarter.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Terms and Conditions, Section A.2.b of this permit.
3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit within 30 days of emissions testing, documentation of the determined pressure drop normal operating range, in inches of water, for the baghouse if the Ohio EPA determines this is more appropriate than the range established during emission testing.

#### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A. of these terms and condition shall be determined in accordance with the following method(s):
  - a. Emission Limitation: limit for visible particulate emissions- twenty (20) percent opacity, as a six-minute average.

Applicable Compliance Method:

If required pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

- b. Emission Limitation: 0.473 lb/hr and 2.07 tons/yr PE.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in

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the permittee's permit application received on June 30, 2005.

$$E(\text{PE}) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$$

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

Compliance with the hourly emission rate shall be demonstrated via testing required in Section E.2.

- c. Emission Limitation: 0.14 lb/hr and 0.62 tons/yr SO<sub>2</sub>.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in the permittee's permit application received on June 30, 2005.

$$E(\text{SO}_2) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$$

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

If required pursuant to OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 6.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- The emission testing shall be conducted within 180 days of initial start-up.
  - The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulate matter and to determine the emission factor in pounds per ton of glass produced .
  - The following test method(s) shall be employed to demonstrate compliance with

Emissions Unit ID: P032

the allowable mass emission rate(s): for particulate matter, Method 5 of 40 CFR Part 60, Appendix A, and Method 202 of 40 CFR Part 51, Appendix M.

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

## F. Miscellaneous Requirements

1. The permittee shall permanently shutdown emission units P002, P003, P007, P008, P009, P010, P012, P016, P017, P026, P027, and P028, previously permitted in PTI No. 01-6653, prior to the installation or modification of emission units P030, P004, P006, P031, P032, P033, P034, and P037, which are contained in this permit to install.
2. The following Terms and Conditions have been incorporated into this permit in order to establish federally enforceable limitations on potential to emit, pursuant to OAC rule 3745-31-05(C) : Part II, Sections A. through F.

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Emissions Unit ID: P033

**PART III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. Applicable Emissions Limitations and/or Control Requirements**

- 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>	
P033 - Glass Making System and Feed to Channel No. 2 controlled by a baghouse	OAC rule 3745-31-05(A)(3)	OAC rule 3745-18-06
(Terms in this permit supercede those identified in PTI 01-01284 issued 09/20/05)		OAC rule 3745-31- 05(C)
	OAC rule 3745-17-07(A)(1)	
	OAC rule 3745-17-11	

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**PTI Application: 01-12015**  
**Issue**

**Facility ID: 0142010065**

**Emissions Unit ID: P033**

Applicable Emissions  
Limitations/Control  
Measures

Particulate emissions (PE) shall not exceed 0.473 pound per hour and 2.07 tons/year. All PE are considered PM-10.

Sulfur dioxide emissions (SO<sub>2</sub>) shall not exceed 0.14 pound per hour and 0.62 ton/year.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-31-05(C).

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.

The emission limitation specified by this rule is less stringent than the

emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

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

See A.2.a.

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## 2. Additional Terms and Conditions

- 2.a The permittee shall limit particulate emissions from emissions units P004, P006, P030, P031, P032, P033, P034, and P037 to 85.84 tons per year. This is based upon the maximum potential to emit for these emission units.

## B. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range either established during the performance test while the emissions unit is in operation or determined by the permittee in agreement with the Ohio EPA .

## C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall 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) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, compliance with the mass emission limitation and/or visible emission limitation shall be determined by performing mass emission tests and/or visible emission readings, using USEPA approved methods and procedures.

**Owen****PTI A**Emissions Unit ID: **P033****Issued: To be entered upon final issuance****D. Reporting Requirements**

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in Section B.1 above. The report shall include a copy of such record and shall be sent to the Director (the Ohio EPA Central District Office) following the end of the quarter.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Terms and Conditions, Section A.2.b of this permit.
3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit within 30 days of emissions testing, documentation of the determined pressure drop normal operating range, in inches of water, for the baghouse if the Ohio EPA determines this is more appropriate than the range established during emission testing.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A. of these terms and condition shall be determined in accordance with the following method(s):
  - a. Emission Limitation: limit for visible particulate emissions- twenty (20) percent opacity, as a six-minute average.  
  
Applicable Compliance Method:  
If required pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.
  - b. Emission Limitation: 0.473 lb/hr and 2.07 tons/yr PE.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum

Emissions Unit ID: P033

process throughput and the Owens Corning (OC) specific emission factor contained in the permittee's permit application received on June 30, 2005.

$$E(\text{PE}) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$$

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

Compliance with the hourly emission rate shall be demonstrated via testing required in Section E.2.

- c. Emission Limitation: 0.14 lb/hr and 0.62 tons/yr SO<sub>2</sub>.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in the permittee's permit application received on June 30, 2005.

$$E(\text{SO}_2) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$$

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

If required pursuant to OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 6.

2. 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 180 days of initial start-up.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulate matter and to determine the emission factor in pounds per ton of glass produced .
  - c. The following test method(s) shall be employed to demonstrate compliance with

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the allowable mass emission rate(s): for particulate matter, Method 5 of 40 CFR Part 60, Appendix A, and Method 202 of 40 CFR Part 51, Appendix M.

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

**F. Miscellaneous Requirements**

- 1. The permittee shall permanently shutdown emission units P002, P003, P007, P008, P009, P010, P012, P016, P017, P026, P027, and P028, previously permitted in PTI No. 01-6653, prior to the installation or modification of emission units P030, P004, P006, P031, P032, P033, P034, and P037, which are contained in this permit to install.
- 2. The following Terms and Conditions have been incorporated into this permit in order to establish federally enforceable limitations on potential to emit, pursuant to OAC rule 3745-31-05(C) : Part II, Sections A. through F.

**PART III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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>
P034 - Glass Making System and Feed to Channel No. 3 controlled by a baghouse	OAC rule 3745-31-05(A)(3)
(Terms in this permit supercede those identified in PTI 01-01284 issued 09/20/05)	OAC rule 3745-18-06
	OAC rule 3745-31- 05(C)
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-17-11

**Owen  
PTI A**

Emissions Unit ID: **P034**

**Issued: To be entered upon final issuance**

Applicable Emissions  
Limitations/Control  
Measures

Particulate emissions (PE) shall not exceed 0.473 pound per hour and 2.07 tons/year.

All PE are considered PM-10.

Sulfur dioxide emissions (SO<sub>2</sub>) shall not exceed 0.14 pound per hour and 0.62 ton/year.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-31-05(C).

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period. Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.

The emission limitation

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

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

See A.2.a.

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## **2. Additional Terms and Conditions**

- 2.a** The permittee shall limit particulate emissions from emissions units P004, P006, P030, P031, P032, P033, P034, and P037 to 85.84 tons per year. This is based upon the maximum potential to emit for these emission units.

## **B. Operational Restrictions**

1. The pressure drop across the baghouse shall be maintained within the range either established during the performance test while the emissions unit is in operation or determined by the permittee in agreement with the Ohio EPA .

## **C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall 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) with any modifications deemed necessary by the permittee. For each operating day, the permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, compliance with the mass emission limitation and/or visible emission limitation shall be determined by performing mass emission tests and/or visible emission readings, using USEPA approved methods and procedures.

#### D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in Section B.1 above. The report shall include a copy of such record and shall be sent to the Director (the Ohio EPA Central District Office) following the end of the quarter.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Terms and Conditions, Section A.2.b of this permit.
3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit within 30 days of emissions testing, documentation of the determined pressure drop normal operating range, in inches of water, for the baghouse if the Ohio EPA determines this is more appropriate than the range established during emission testing.

#### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A. of these terms and condition shall be determined in accordance with the following method(s):
  - a. Emission Limitation: limit for visible particulate emissions- twenty (20) percent opacity, as a six-minute average.

Applicable Compliance Method:

If required pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

- b. Emission Limitation: 0.473 lb/hr and 2.07 tons/yr PE.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in

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the permittee's permit application received on June 30, 2005.

$$E(\text{PE}) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$$

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

Compliance with the hourly emission rate shall be demonstrated via testing required in Section E.2.

- c. Emission Limitation: 0.14 lb/hr and 0.62 tons/yr SO<sub>2</sub>.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in the permittee's permit application received on June 30, 2005.

$$E(\text{SO}_2) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$$

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

If required pursuant to OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 6.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- The emission testing shall be conducted within 180 days of initial start-up.
  - The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulate matter and to determine the emission factor in pounds per ton of glass produced .
  - The following test method(s) shall be employed to demonstrate compliance with

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the allowable mass emission rate(s): for particulate matter, Method 5 of 40 CFR Part 60, Appendix A, and Method 202 of 40 CFR Part 51, Appendix M.

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

## F. Miscellaneous Requirements

1. The permittee shall permanently shutdown emission units P002, P003, P007, P008, P009, P010, P012, P016, P017, P026, P027, and P028, previously permitted in PTI No. 01-6653, prior to the installation or modification of emission units P030, P004, P006, P031, P032, P033, P034, and P037, which are contained in this permit to install.
2. The following Terms and Conditions have been incorporated into this permit in order to establish federally enforceable limitations on potential to emit, pursuant to OAC rule 3745-31-05(C) : Part II, Sections A. through F.

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**PART III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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>	
P037 - fabrication and packaging that include the following operations: fiberizers, rotary formers, mills, baggers and screen filters  (Terms in this permit supercede those identified in PTI 01-01284 issued 09/20/05)	OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)(1)
		40 CFR Part 60, Subpart PPP
		OAC rule 3745-17-11
		OAC rule 3745-18-06

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OAC rule 3745-31-05(C)

Applicable Emissions  
 Limitations/Control Measures

Particulate emissions (PE) shall not exceed 17.84 pounds per hour and 78.13 tons/year.

All PE are considered PM-10.

See A.2.a

Sulfur dioxide emissions (SO<sub>2</sub>) shall not exceed 1.59 pounds per hour and 6.95 tons/year.

Nitrogen oxide emissions (NO<sub>x</sub>) shall not exceed 1.80 pounds per hour and 7.88 tons/year.

Carbon monoxide emissions (CO) shall not exceed 9.74 pounds per hour and 42.65 tons/year.

Volatile organic compound emissions (VOC) shall not exceed 8.33 pounds per hour and 36.49 tons/year.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A)(1) and 3745-31-05(C).

Visible particulate emissions from the exhaust stack serving this emissions unit shall not exceed 20% opacity, as a 6-minute average, except for a period of not more than 6 consecutive minutes in any 60-minute period.

Visible particulate emissions shall not exceed 60% opacity, as a 6-minute average, at any time.

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

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

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

See A.2.b.

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

- 2.a** Particulate emissions shall not exceed 11.0 pounds per ton of glass pulled.
- 2.b** The permittee shall limit particulate emissions from emissions units P004, P006, P030, P031, P032, P033, P034, and P037 to 85.84 tons per year. This is based upon the maximum potential to emit for these emission units.

**B. Operational Restrictions**

1. The pressure drop across the air pollution control filters shall be maintained within the range established during the performance test while the emissions unit is in operation or determined by the permittee in agreement with the Ohio EPA.

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

1. The permittee shall operate and maintain equipment to monitor the pressure drop across the air pollution control filters while the emissions unit is in operation. The monitoring equipment shall be installed, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s) with any modifications deemed necessary by the permittee. The monitoring equipment shall be calibrated on a quarterly basis. For each operating day, the permittee shall record the pressure drop across the air pollution control filters on a daily basis. The permittee shall retain copies or records of the monitoring equipment calibrations.
2. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- a. the color of the emissions;
  - b. whether the emissions are representative of normal operations;
  - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. the total duration of any visible emission incident; and
  - e. any corrective actions taken to eliminate the visible emissions.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, compliance with the mass

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emission limitation and/or visible emission limitation shall be determined by performing mass emission tests and/or visible emission readings, using USEPA approved methods and procedures.

The permittee may, upon receipt of written approval from the Ohio EPA Central District Office, modify the above-mentioned frequencies for performing the visible emissions checks if operating experience indicates that less frequent visible emissions checks would be sufficient to ensure compliance with the above-mentioned applicable requirements.

3. The permit to install for this emissions unit P037 was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the ISC-Prime model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the ISC-Prime (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: ethanol

TLV (mg/m<sup>3</sup>): 1884

Maximum Hourly Emission Rate (lbs/hr): 8.04

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 329.5

MAGLC (ug/m<sup>3</sup>): 44,863

4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
  - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as

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documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### D. Reporting Requirements

1. The permittee shall submit quarterly pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range established in Section B.1 above. The report shall include a copy of such record and shall be sent to the Director (the Ohio EPA Central District Office) following the end of the quarter.
2. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Terms and Conditions, Section A.2.b of this permit.
3. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
4. The permittee shall submit within 30 days of emissions testing, documentation of the determined pressure drop normal operating range, in inches of water, for the baghouse if the Ohio EPA determines this is more appropriate than the range established during emission testing.

#### E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A. of these terms and condition shall be determined in accordance with the following method(s):
  - a. Emission Limitation: limit for visible particulate emissions- twenty (20) percent opacity, as a six-minute average.

Applicable Compliance Method:

If required pursuant to OAC rule 3745-15-04, compliance shall be determined by visible emission evaluations performed in accordance with OAC rule 3745-17-03(B)(1) using the methods and procedures specified in U.S.EPA Reference Method 9.

- b. Emission Limitation: 17.84 lbs/hr and 78.13 tons/yr PE.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in

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the permittee's permit application received on June 30, 2005.

$$E(\text{PE}) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}.$$

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

Compliance with the hourly emission rate shall be demonstrated via testing required in Section E.2.

- c. Emission Limitation: less than 11.0 pounds PE per ton of glass pulled..

Applicable Compliance Method:

This emission limitation shall be determined as specified in Section E.2.b.

- d. Emission Limitation: 1.59 lbs/hr and 6.95 tons/yr SO<sub>2</sub>

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in the permittee's permit application received on June 30, 2005.

$$E(\text{SO}_2) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}.$$

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

Compliance with the hourly emission rate shall be demonstrated via testing required in Section E.2.

- e. Emission Limitation: 1.80 lbs/hr and 7.88 tons/yr NO<sub>x</sub>.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in the permittee's permit application received on June 30, 2005.

$E(\text{NO}_x) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$ .

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

If required pursuant to OAC rule 3745-15-04, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 7E.

- f. Emission Limitation: 9.74 lbs/hr and 42.65 tons/yr CO.

Applicable Compliance Method:

Compliance with the hourly emission limit shall be demonstrated using maximum process throughput and the Owens Corning (OC) specific emission factor contained in the permittee's permit application received on June 30, 2005.

$E(\text{CO}) = \text{OC-specific emission factor (lb/ton)} \times \text{maximum throughput (tons/hr)}$ .

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

Compliance with the hourly emission rate shall be demonstrated via testing required in Section E.2.

- g. Emission Limitation: 8.33 lbs/hr and 36.49 tons/yr VOC

Applicable Compliance Method:

Compliance with the hourly emission rate shall be demonstrated via testing required in Section E.2.

Compliance with the annual emission limit shall be demonstrated by multiplying the allowable hourly emission rate by 8670 hours/year and dividing by 2000 lbs/ton. Compliance with the tons per year emission limitation shall be assumed provided compliance with the hourly emission limitation is maintained.

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2. 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 180 days of initial start-up.
  - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulate matter, sulfur dioxide, carbon monoxide, and volatile organic compounds, and to determine the emission factors of pounds of pollutant per ton of glass produced for PE, SO<sub>2</sub>, and CO.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulate matter, Method 5 of 40 CFR Part 60, Appendix A, and Method 202 of 40 CFR Part 51, Appendix M; for sulfur dioxide, Method 6 of 40 CFR Part 60, Appendix A; for carbon monoxide, Method 10 of 40 CFR Part 60, Appendix A; and for volatile organic compounds, Method 25A of 40 CFR Part 60, Appendix A.
  - 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 Ohio EPA Central District Office.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Central District Offices refusal to accept the results of the emission test(s).
  - f. Personnel from the Ohio EPA 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.
  - g. 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 Ohio EPA 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 Ohio EPA Central District

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Office.

#### **F. Miscellaneous Requirements**

1. The permittee shall permanently shutdown emission units P002, P003, P007, P008, P009, P010, P012, P016, P017, P026, P027, and P028, previously permitted in PTI No. 01-6653, prior to the installation or modification of emission units P030, P004, P006, P031, P032, P033, P034, and P037, which are contained in this permit to install.
2. The following Terms and Conditions have been incorporated into this permit in order to establish federally enforceable limitations on potential to emit, pursuant to OAC rule 3745-31-05(C) : Part II, Sections A., B., C.1, C.2, D., E., and F.