

Synthetic Minor Determination and/or Netting Determination

Permit To Install 16-02388

A. Source Description

Owens Corning is proposing to conduct evaluations on the use of a blowing agent containing a VOC on their polystyrene foam extrusion line #2 and associated finishing equipment (P002 and P006) in Summit county Ohio.

B. Facility Emissions and Attainment Status

Owens Corning is a Title V facility operating in Summit county and is non-attainment.

C. Source Emissions

Line #2 emits both organic compounds and particulate. After the modification, it will also emit volatile organic compounds. The potential to emit increase of VOC will be 88.74 tons, however, Owens Corning is going to limit itself to an annual operating restriction of 3,240 hours for both P002 and P006. With this restriction in place the potential increase in VOC emissions will become 32.8 tons and facility will be able to avoid non-attainment review.

D. Conclusion

Adherence to all of the terms and conditions of this permit will allow Owens Corning to avoid non-attainment review.



State of Ohio Environmental Protection Agency

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

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov.
Center

Application No: 16-02388

Fac ID: 1677120043

DATE: 1/6/2005

Owens Corning Tallmadge Facility
Gary Scotton
PO Box 37 170 South Ave
Tallmadge, OH 44278-0037

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 **\$400** 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

ARAQMD

Akron Metro Area Trans. Study

WV

PA



**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 16-02388

Application Number: 16-02388
Facility ID: 1677120043
Permit Fee: **To be entered upon final issuance**
Name of Facility: Owens Corning Tallmadge Facility
Person to Contact: Gary Scotton
Address: PO Box 37 170 South Ave
Tallmadge, OH 44278-0037

Location of proposed air contaminant source(s) [emissions unit(s)]:
**170 South Ave
Tallmadge, Ohio**

Description of proposed emissions unit(s):
Modification to Line 2 to Allow Use of Alternative Blowing Agent.

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 Tallmadge Facility

Facility ID: 1677120043

PTI Application: 16-02388

Issued: To be entered upon final issuance

Part I - GENERAL TERMS AND CONDITIONS

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

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

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- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

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

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

3. Risk Management Plans

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

4. Title IV Provisions

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

5. Severability Clause

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A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

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

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit

shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

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

10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete

Owens Corning Tallmadge Facility

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Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

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

11. Best Available Technology

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

12. Air Pollution Nuisance

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

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

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

3. Permit Transfers

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

4. Termination of Permit To Install

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

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5. Construction of New Sources(s)

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

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

6. Public Disclosure

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

7. Applicability

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

8. Construction Compliance Certification

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

9. Additional Reporting Requirements When There Are No Deviations of Federally

Owens Corning Tallmadge Facility**Facility ID: 1677120043****PTI Application: 16-02388****Issued: To be entered upon final issuance****Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

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

C. Permit To Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	32.8
OC	93
PM	1.94

Owens Corning Tallmadge Facility

Facility ID: 1677120043

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

None

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

None

Owen
PTI A

Emissions Unit ID: P002

Issued: To be entered upon final issuance

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P002 - polystyrene foam board extrusion line 2 - barometric leg - modification to employ an additional blowing agent containing VOC	OAC rule 3745-31-05(A)(3)	The requirements of this rule also includes compliance with the requirements of OAC rules 3745-21-07(G)(2) and 3745-31-05(C).
		Organic compound (OC) emissions shall not exceed 1.1 lbs/hour (hr) and 4.82 tons per year (tpy).
		Volatile organic compound (VOC) emissions shall not exceed 0.39 lbs/hr and 1.69 tpy.
	OAC rule 3745-31-05(C)	Annual hours of operation shall not exceed 3240 hours based on a rolling 12-month summation of operating hours when employing a blowing agent containing any VOC.
		The tons per rolling 12-month period shall not exceed 32.8 tpy of VOC combined emissions from P002 and P006.
	OAC rule 3745-21-07(G)(2)	See A.II.a below.

Owen
PTI A

Emissions Unit ID: P002

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2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The permittee shall not employ any photochemically reactive liquid organic compounds, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit.
2. The permittee shall only employ the following blowing agents in this emissions unit:
 - a. chlorodifluoroethane (HCFC-142b) - title VI, class II compound;
 - b. tetrafluoroethane (HFC-134a) - organic compound;
 - c. 1,1,1-trifluoroethane (HFC-143a) - organic compound;
 - d. 1,1-difluoroethane (HFC-152a) - organic compound; or
 - e. USEPA SNAP approved blowing agent containing VOC.
3. The permittee shall establish operating procedures that will minimize HCFC emissions by maintaining the efficiency of the blowing agent addition and board forming operations.
4. The maximum annual operating hours for this emissions unit shall not exceed 3,240 hours when a blowing agent that contains any VOC is employed, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table when a blowing agent that contains any VOC is employed:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	540
1-2	540
1-3	1,080
1-4	1,080
1-5	1,620
1-6	1,620

1-7	2,160
1-8	2,160
1-9	2,700
1-10	2,700
1-11	3,240
1-12	3,240

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours when a blowing agent that contains any VOC is employed.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall evaluate the blowing agent efficiency on a once per shift frequency to ensure that material is being added to meet product specification by performing a "rate check" or by recording the data from the micro motion mass-flow sensor. Rate checks may be conducted by weighing the amount of blowing agent introduced into the extrusion line during a given period of time, by supplying blowing agent from a container, which is weighed at the beginning and end of the evaluation; or the data from the micro motion mass-flow sensors, which control the flow rate of the blowing agent, will be averaged on a per shift frequency and used to determine blowing agent percent to the extrusion line; or by other procedures approved by the Akron RAQMD and Ohio EPA. The permittee shall maintain records of the performance of the blowing agent by rate check or micro-motion flow sensor, on the extrusion line, including date and time, results, i.e., whether the blowing agent rate was within, above, or below specification; whether corrective actions were initiated; and whether such actions were effective, as shown by the next rate check or micro-motion data.
2. The permittee shall evaluate the efficiency of the board forming operations (extrusion die and shaping device at the inlet bulkhead of the barometric leg) on a once per day frequency to ensure the amount of scrap material generated is minimized by performing a "trim loss check." The trim loss checks may be conducted by one of the following methods:
 - a. calculating the percentage of trim loss by using the weights of the untrimmed and trimmed product; or
 - b. calculating the percentage trim loss using untrimmed and trimmed product widths; or
 - c. by other procedures approved by the Akron RAQMD and Ohio EPA.

The permittee shall maintain records of the performance of trim loss checks on the extrusion line, including date and time, results, i.e., whether the trim was within, above, or below specification; whether corrective actions were initiated; and whether such actions were effective, as shown by the next rate check.

3. The permittee shall calculate and record the following information on a daily basis:

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- a. total amount of raw materials consumed, i.e. polystyrene resin + blowing agent + colorant + flame retardant + fillers, in pounds;
 - b. record of each blowing unit employed, the amount used, and the number of hours it was employed;
 - c. the number of hours of operation; and
 - d. the OC and VOC emission rate, calculated in accordance with the equations in sections A.V.1.a - A.V.1.b below, in pounds per hour (average).
4. The permittee shall maintain monthly records of the following information for this emissions unit:
- a. the operating hours for each month when a blowing agent that contains any VOC is employed;
 - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the operating hours when a blowing agent that contains any VOC is employed;
 - c. during the first 12 calendar months of operation when a blowing agent that contains any VOC is employed following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month;
 - d. the total mass VOC emissions, in tons; and
 - e. the rolling, 12-month summation of the total mass VOC emissions.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the average hourly total organic compound emissions exceeded 1.1 pounds per hour, and the actual average hourly organic compound emissions for each such day.
2. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the average hourly total volatile organic compound emissions exceeded 0.39 pounds per hour, and the actual average hourly volatile organic compound emissions for each such day.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the

Emissions Unit ID: P002

rolling, 12-month operating hours limitation when a blowing agent containing any VOC is employed and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours levels when a blowing agent containing any VOC is employed.

4. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for VOC.
5. The quarterly deviation reports shall be submitted as specified in Part I - General Term and Conditions of this permit.
6. The permittee shall submit quarterly written reports which (a) identify all days during which either the blowing efficiency or trim loss checks results in out of specification results and (b) describe any corrective actions taken bring the results back into proper specifications. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.
7. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of any blowing agent other than those allowed in section A.II.2 above. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.
8. The permittee shall submit an annual report (this report maybe submitted as confidential) beginning after issuance of the final air permit to install summarizing their efforts to replace blowing agent HCFC-142b or any other blowing agent employed as described in term A.II.2 above. This report shall contain information pursuant to, but not limited to, the federal Significant New Alternative Policy (SNAP) program and any regulations pertaining to that program, including updates to any pertaining SNAP regulations and correspondence with federal SNAP program officials.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:

Organic compound (OC) emissions shall not exceed 1.1 lbs/hr
4.82 tpy OC

Applicable Compliance Method:

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Compliance with the hourly limitation shall be determined in accordance with the following equation:

$$\text{Hourly OC rate (lbs/hr)} = \text{SUM} (M) * \text{EF} * P_{\text{organic}}$$

Where:

M = actual raw material in - feed rate factoring in buoyancy factor entering extruder

EF = emission factor, 0.0004 OC/lb raw material (accounts for buoyancy factor)

P_{organic} = Concentration OC blend/BA % content of in-feed

The constant factors were developed by the permittee as the result of stack testing performed at a similar facility for the same product mix.

Compliance with the annual limitation shall be determined by multiplying the hourly limitation by 8760 hours per year and divide the result by 2000 to convert to tons.

b. Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 0.39 lbs/hr
1.69 tpy of VOC.

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined in accordance with the following equation:

$$\text{Hourly VOC rate (lbs/hr)} = \text{Sum} (M) \times \text{EF} * P_{\text{voc}}$$

Where:

M = actual raw material in - feed rate factoring in buoyancy factor entering extruder

EF = emission factor, 0.0004 VOC/lb raw material (accounts for buoyancy factor)

P_{VOC} = Concentration VOC blend/BA % content of in-feed.

The constant factors were developed by the permittee as the result of stack testing performed at a similar facility for the same product mix.

Compliance with the annual limitation shall be determined by multiplying the hourly limitation by 8760 hours per year and divide the result by 2000 to convert to tons.

Owens Corning Tallmadge Facility

PTI Application: 16-02200

Issued

Facility ID: 1677120043

Emissions Unit ID: P002

c. Emission Limitation:

Annual hours of operation shall not exceed 3240 hours based on a rolling 12-month summation of operating hours when employing a blowing agent containing any VOC.

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Applicable Compliance Method:

Compliance with hours of operation limitation shall be determined based upon record keeping requirements in section A.III.4 of these T&Cs.

d. Emission Limitation:

The tons per rolling 12-month period shall not exceed 32.8 tpy VOC combined emissions from P002 and P006.

Applicable Compliance Method:

Compliance with the tons per rolling 12-month period limitation shall be determined based upon record keeping requirements in section A.III.4 of these T&Cs.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P002 - polystyrene foam board extrusion line 2 - barometric leg - modification to employ an additional blowing agent containing VOC	None	None

2. Additional Terms and Conditions

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for these emissions units (P002 and P006) was evaluated based on the actual materials (typically coatings and cleanup 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 for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC) and the result of this analysis showed compliance with the Air Toxic Policy. Due to product related confidentially aspects of this analysis, the results are not listed in this term. But the results can be obtained if needed by the public thru the local air agency (Akron Air Pollution Control in Akron, Ohio).

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2. 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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - 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.).

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) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

3. 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 its 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.

Owens Corning Tallmadge Facility
PTI Application: 16-02200
Issued

Facility ID: 1677120043

Emissions Unit ID: P002

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P006 - polystyrene foam board finishing equipment associated with line 2 - trimming and cutting of foam board - Modification	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07
	OAC rule 3745-17-11
	OAC rule 3745-31-05(C) (to avoid non-attainment provisions)

Owen:
PTI A

Emissions Unit ID: P006

Issued: To be entered upon final issuance

Applicable Emissions
Limitations/Control
Measures

The requirements of this rule also includes compliance with the requirements of OAC rules 3745-17-07, 3745-17-11, and 3745-31-05(C).

Organic compound (OC) emissions shall not exceed 43.4 lbs/hr and 190 tpy.

OC emissions shall not exceed 56.5 tpy (fugitive warehouse emissions).

Volatile organic compounds (VOC) emissions shall not exceed 15.3 lbs/hr and 32.8 tpy.

VOC emissions shall not exceed 7.37 tpy (fugitive warehouse emissions).

Particulate (PM) emissions shall not exceed 0.44 lbs/hr and 1.94 tpy.

10% opacity as a 6-minute average

Annual hours of operation shall not exceed 3240 hours based on a rolling 12-month summation of operating hours when finishing foam boards containing any VOC

blowing agents.

The tons per rolling 12-month period shall not exceed 32.8 tpy of VOC combined emissions from P002 and P006.

See A.I.2.a below.

See A.I.2.a below.

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

- 2.a** The requirements established under this rule are less stringent than the requirements of OAC rule 3745-31-05(A)(3).

II. Operational Restrictions

1. The permittee shall only finish foam board containing the following blowing agents in this emissions unit:
 - a. chlorodifluoroethane (HCFC-142b) - title VI, class II compound;
 - b. tetrafluoroethane (HFC-134a) - organic compound;
 - c. 1,1,1-trifluoroethane (HFC-143a) - organic compound;
 - d. 1,1-difluoroethane (HFC-152a) - organic compound; or
 - e. USEPA SNAP approved blowing agent containing VOC.
2. The pressure drop across the baghouse shall be maintained within the range of 0.5 and 5.0 inches of water while the emissions unit is in operation.
3. The maximum annual operating hours for this emissions unit shall not exceed 3,240 hours when a foam board that contains any VOC blowing agent is finished, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the operating hours levels specified in the following table when a foam board that contains any VOC blowing agent is finished:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative Operating Hours</u>
1	540
1-2	540
1-3	1,080
1-4	1,080
1-5	1,620
1-6	1,620
1-7	2,160

1-8	2,160
1-9	2,700
1-10	2,700
1-11	3,240
1-12	3,240

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours when a foam board that contains any VOC blowing agent is finished.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.
2. The permittee shall calculate and record the following information on a daily basis:
 - a. total amount of raw materials consumed, i.e. polystyrene resin + blowing agent + colorant + flame retardant + fillers, in pounds;
 - b. record of each blowing unit contained in the foam board;
 - c. the number of hours of operation; and
 - d. the OC and VOC emission rate, calculated in accordance with the equations in sections A.V.1.a - A.V.1.b below, in pounds per hour (average).
3. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the operating hours for each month when a foam board that contains any VOC blowing agent is finished; and
 - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the operating hours when a foam board that contains any VOC blowing agent is finished.
 - c. during the first 12 calendar months of operation when a foam board that contains any VOC blowing agent is finished following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.
 - d. the total VOC mass emissions, in tons; and

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- e. the rolling, 12-month summation of the total VOC mass emissions.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
2. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the average hourly total organic compound emissions exceeded xxx pounds per hour, and the actual average hourly organic compound emissions for each such day.
3. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the average hourly total volatile organic compound emissions exceeded xxx pounds per hour, and the actual average hourly volatile organic compound emissions for each such day.
4. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation when a foam board that contains any VOC blowing agent is finished and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours levels when a foam board that contains any VOC blowing agent is finished.
5. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for VOC
6. The quarterly deviation reports shall be submitted as specified in Part I - General Term and Conditions of this permit.
7. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of any blowing agent other than those allowed in section A.II.1 above. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

V. Testing Requirements

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

a. Emission Limitation:

Organic compound (OC) emissions shall not exceed 43.4 lbs/hr and 190 tpy.

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined in accordance with the following equation:

$$\text{Hourly OC rate (lbs/hr)} = \text{SUM} (M * \text{Trim\%}) * \text{PMix}$$

Where:

SUM = Summation for each OC in the blowing agent mix

M = actual raw material in - feed rate factoring in buoyancy factor entering extruder

Trim% = percentage of material that can be removed from board stock

PMix = Mix parameter, OC component of blowing agent

Compliance with the annual limitation shall be determined by multiplying the hourly limitation by 8760 hours per year and divide the result by 2000 to convert to tons.

b. Emission Limitation:

Volatile organic compounds (VOC) emissions shall not exceed 15.3 lbs/hr and 32.8 tpy.

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined in accordance with the following equation:

$$\text{Hourly VOC rate (lbs/hr)} = \text{SUM} (M * \text{Trim\%}) * \text{PMix}$$

Where:

SUM = Summation for each VOC in the blowing agent mix

M = actual raw material in - feed rate factoring in buoyancy factor entering extruder

Trim% = percentage of material that can be removed from board stock

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PM_{Mix} = Mix parameter, VOC component of blowing agent

Compliance with the annual limitation shall be determined by multiplying the hourly limitation by maximum allowed yearly hours of operation and divide the result by 2000 to convert to tons.

c. Emission Limitation:

Particulate (PM) emissions shall not exceed 0.44 lbs/hr and 1.94 tpy.

Applicable Compliance Method:

If required, compliance shall be determined using the following methods:

Methods 1 thru 5 of 40 CFR Part 60, Appendix A.

Compliance with tons per year limitation can be ensured by compliance with the lbs/hr limitation.

d. Emission Limitation:

10% opacity as a 6-minute average

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

e. Emission Limitation:

Annual hours of operation shall not exceed 3240 hours based on a rolling 12-month summation of operating hours when finishing foam boards containing any VOC blowing agents.

Applicable Compliance Method:

Compliance with hours of operation limitation shall be determined based upon record keeping requirements in section A.III.3 of these T&Cs.

f. Emission Limitation:

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Emissions Unit ID: P006

Issued: To be entered upon final issuance

The tons per rolling 12-month period shall not exceed 32.8 tpy VOC combined emissions from P002 and P006.

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Applicable Compliance Method:

Compliance with the tons per rolling 12-month period limitation shall be determined based upon record keeping requirements in section A.III.3 of these T&Cs.

g. Emission Limitation:

56.5 tpy OC (fugitive warehouse emissions)

Applicable Compliance Method:

Compliance with the annual limitation shall be determined in accordance with the following equation:

$$\text{Annual OC rate (tons per year)} = \frac{\text{SUM (M * Trim%) EF2 * PMix * 3240 hr}}{2000}$$

Where:

SUM = Summation for each OC in the blowing agent mix

M = actual raw material in - feed rate factoring in buoyancy factor entering extruder

Trim% = percentage of material that is removed from board stock

EF2 = emission factor based on in-feed material less trim with buoyancy accounted for

PMix = Concentration OC blend/BA % content of in-feed

h. Emission Limitation:

7.37 tpy VOC (fugitive warehouse emissions)

Applicable Compliance Method:

Compliance with the annual limitation shall be determined in accordance with the following equation:

$$\text{Annual VOC rate (tons per year)} = \text{SUM (M * Trim%) EF2 * PMix * 3240 hr}$$

/ 2000

Where:

SUM = Summation for each VOC in the blowing agent mix

M = actual raw material in - feed rate factoring in buoyancy factor entering extruder

Trim% = percentage of material that is removed from board stock

EF2 = emission factor based on in-feed material less trim with buoyancy accounted for

PMix = Concentration VOC blend/BA % content of in-feed

VI. Miscellaneous Requirements

None

Owen

PTI A

Emissions Unit ID: P006

Issued: To be entered upon final issuance**B. State Only Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P006 - polystyrene foam board finishing equipment associated with line 2 - trimming and cutting of foam board - Modification	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for these emissions units (P002 and P006) was evaluated based on the actual materials (typically coatings and cleanup 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 for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC) and the result of this analysis showed compliance with the Air Toxic Policy. Due to product related confidentially aspects of this analysis, the results are not listed in this term. But the results can be obtained if needed by the public thru the local air agency (Akron Air Pollution Control in Akron, Ohio).

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2. 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 (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - 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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

3. 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 its 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.

IV. Reporting Requirements

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PTI Application: 16-02200
Issued

Facility ID: 1677120043

Emissions Unit ID: P006

None

V. Testing Requirements

None

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VI. Miscellaneous Requirements

Emissions Unit ID: P006

None