



State of Ohio Environmental Protection Agency

**STREET ADDRESS:**

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Columbus, Ohio 43215

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**MAILING ADDRESS:**

P.O. Box 1049  
Columbus, OH 43216-1049

8/4/2009

**Certified Mail**

Mark Arnold  
Owens Corning Insulating Systems, LLC  
400 Case Ave.  
Newark, OH 43055-5893

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0145020185  
Permit Number: P0104468  
Permit Type: Administrative Modification  
County: Licking

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Central District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.state.oh.us/dapc>.

Sincerely,

Michael W. Ahern, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*  
Ohio EPA DAPC, Central District Office

Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director





**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

**FINAL**

**Air Pollution Permit-to-Install  
for  
Owens Corning Insulating Systems, LLC**

Facility ID: 0145020185  
Permit Number: P0104468  
Permit Type: Administrative Modification  
Issued: 8/4/2009  
Effective: 8/4/2009





State of Ohio Environmental Protection Agency  
 Division of Air Pollution Control

**Air Pollution Permit-to-Install**  
 for  
 Owens Corning Insulating Systems, LLC

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State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0104468  
**Facility ID:** 0145020185  
**Effective Date:** 8/4/2009

## Authorization

Facility ID: 0145020185  
Facility Description: Mineral Wool  
Application Number(s): M0000385  
Permit Number: P0104468  
Permit Description: Administrative modification to changes ammonia limitations to match stack testing results. There is no change to the federally enforceable limitations.  
Permit Type: Administrative Modification  
Permit Fee: \$750.00  
Issue Date: 8/4/2009  
Effective Date: 8/4/2009

This document constitutes issuance to:

Owens Corning Insulating Systems, LLC  
400 CASE AVE.  
NEWARK, OH 43055-5893

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

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Central District Office  
50 West Town Street, 6th Floor  
P.O. Box 1049  
Columbus, OH 43216-1049  
(614)728-3778

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski  
Director



State of Ohio Environmental Protection Agency  
 Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0104468  
**Facility ID:** 0145020185  
**Effective Date:** 8/4/2009

## Authorization (continued)

Permit Number: P0104468  
 Permit Description: Administrative modification to changes ammonia limitations to match stack testing results. There is no change to the federally enforceable limitations.

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

<b>Emissions Unit ID:</b>	<b>P031</b>
Company Equipment ID:	F-5/6 Forming
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P128</b>
Company Equipment ID:	F6/5 Trim
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0104468  
**Facility ID:** 0145020185  
**Effective Date:** 8/4/2009

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



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

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

**2. Severability Clause**

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

**3. General Requirements**

- a) 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 re-issuance, or modification.



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

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

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



(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Central District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Central District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## 5. Scheduled Maintenance/Malfunction Reporting

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

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

## 6. Compliance Requirements

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

b) 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.

c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:



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

## **7. Best Available Technology**

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

## **8. Air Pollution Nuisance**

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

## **9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Central District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Central District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e.,



postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

## **10. Applicability**

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

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

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed through completion of the annual PER covering the last period of operation of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the PER covering the last period the emissions unit operated.



No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

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

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

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if 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).

## **13. Construction Compliance Certification**

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

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

## **14. Public Disclosure**

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

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

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

## **16. Fees**

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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0104468  
**Facility ID:** 0145020185  
**Effective Date:** 8/4/2009

**17. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Central District Office must be notified in writing of any transfer of this permit.

**18. Risk Management Plans**

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

**19. Title IV Provisions**

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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0104468  
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**Effective Date:** 8/4/2009

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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0104468  
**Facility ID:** 0145020185  
**Effective Date:** 8/4/2009

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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0104468  
**Facility ID:** 0145020185  
**Effective Date:** 8/4/2009

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



**1. P031, F-5/6 Forming**

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

F-5 Fiber and Pack Forming

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Filterable and condensable particulate emissions shall not exceed 29.5 pounds per hour and 129.2 tons per year.  Sulfur dioxide emissions shall not exceed 5.3 pounds per hour and 23.0 tons per year.  Nitrogen oxide emissions shall not exceed 5.3 pounds per hour and 23.0 tons per year.  Carbon monoxide emissions shall not exceed 17.5 pounds per hour and 76.7 tons per year.  Formaldehyde emissions shall not exceed 8.5 pounds per hour and 37.2 tons per year.  Methanol emissions shall not exceed 18.5 pounds per hour.  Phenol emissions shall not exceed 26.5 pounds per hour.  Volatile organic compound emissions shall not exceed 53.6 pounds per hour.  Ammonia emissions shall not exceed 40 pounds per hour and 175.2 tons per year.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).
b.	OAC rule 3745-17-07(A)(1)	See b)(2)a-b and c)(1) – (2) below.
c.	OAC rule 3745-17-11(B)(1)	Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average.
	OAC rule 3745-21-07(G)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-21-08(B)	Exempt, (See c)(3)).
e.	OAC rule 3745-31-05(D)	Methanol emissions from P031, P066 and P128 shall not exceed 45.00 tons per rolling 12-month summation.  Phenol emissions from P031, P066 and P128 shall not exceed 50.00 tons per rolling 12-month summation.  Volatile organic compound emissions from P031, P066 and P128 shall not exceed 143.2 tons per rolling 12-month summation.

(2) Additional Terms and Conditions

- a. The permittee shall control particulate emissions using a system consisting of a drop-out box, a fan, and a set of cyclonic separators (secondary separators).
- b. Filterable particulate emissions shall not exceed 23.5 pounds per hour per the 1980 Consent Decree, State of Ohio versus Owens-Corning Fiberglas Corporation.
- c. The permittee has satisfied the "best available control techniques and operating practices" and "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08.

c) Operational Restrictions

- (1) Phenol formaldehyde resin delivered to the facility shall not exceed a free methanol content of 1%.
- (2) Permittee shall only burn natural gas in this emissions unit.



- (3) To avoid the emission limitations/control requirements contained in OAC rule 3745-21-07(G)(2), no photochemically reactive materials (i.e., as raw materials or cleanup materials) shall be employed in this emissions unit.

Note: The definition of "photochemically reactive material" is based upon OAC rule 3745-21-01(C)(5).

- (4) The maximum amount of methanol and phenol in the resin delivered to P027 and P031 combined shall not exceed 156 tons, based upon a rolling, 12-month summation of the resin delivered. To ensure enforceability during the first twelve calendar months of operation after issuance of this permit to install, emissions units P027 and P031 combined shall not exceed the following resin delivered for use limitation:

Month(s)	Maximum Cumulative Allowable Methanol and Phenol in Resin Delivered to P027 and P031 (tons):
1	25
1 - 2	45
1 - 3	65
1 - 4	80
1 - 5	90
1 - 6	100
1 - 7	110
1 - 8	120
1 - 9	130
1 - 10	140
1 - 11	150
1 - 12	156

After the first twelve calendar months of operation following the issuance of this permit, compliance with the annual methanol and phenol in resin limitation shall be used upon rolling, 12-month summation of tons of methanol and phenol in the resin delivered to P027 and P031.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information: Reporting Requirements
  - a. ton(s) of resin delivered to P031;
  - b. methanol concentration (%) in resin (an average of the methanol content in the resin taken from the resin delivery certificates received during the year);
  - c. phenol concentration (%) (an average of the resin phenol concentration determined from resin delivery certificates received during the year);
  - d. total methanol delivered to P031, calculated as follows: a\*b;
  - e. total phenol delivered to P031, calculated as follows: a\*c;



- f. total methanol and phenol delivered to P027 and P031 combined (tons), calculated as follows:  $d + e + M_{P027} + P_{P027}$  where M equals methanol and P equals phenol;
  - g. methanol emitted from F-5 manufacturing line, calculated as follows:  $d * [0.87$  (percent of delivered methanol estimated to be emitted over the entire F-5 manufacturing line)];
  - h. phenol emitted from F-5 manufacturing line, calculated as follows:  $e * [0.87$  (percent of delivered phenol estimated to be emitted over the entire F-5 manufacturing line)];
  - i. total hours of operations for P031;
  - j. formaldehyde emissions from P031 ( $F_{P031}$ ), calculated as follows:  $8.5 \text{ lbs/hr}$  (hourly maximum) \* i;
  - k. total VOC emissions from natural gas combustion from P031 (tons), calculated as follows:  $[158 \text{ MMCF/yr} * (5.5 \text{ lbs voc/mmcf}) * (i) / (8760 * 2000)]$ ;
  - l. total VOC emissions from F-5 manufacturing line (P031, P066 and P128) shall be calculated as follows:  $NG_{P031} + F_{P031} + NG_{P066} + F_{P066} + NG_{P128} + F_{P128} + g$  and h where NG equals natural gas and F equals formaldehyde;
  - m. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the tons of methanol and phenol in the resin delivered to P027 and P031 combined; and
  - n. during the first 12 calendar months of operation following the issuance of this permit, the cumulative tons of methanol and phenol in the resin delivered to P027 and P031 for each calendar month.
- (2) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
  - (3) The permittee shall maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.
- e) Reporting Requirements
- (1) The permittee shall submit deviation (excursion) reports that identify all exceedances of the cumulative rolling, 12-month tons of methanol and phenol in the resin delivered to P027 and P031 combined, limitation. In addition, the permittee shall submit deviation (excursion) reports that identify all exceedances during the first 12 calendar months of operation following issuance of this permit, all exceedances of the maximum allowable cumulative tons of methanol and phenol in the resin delivered to P027 and P031 combined.
  - (2) The permittee shall also submit annual reports which specify total methanol, phenol and VOC emissions and total tons of methanol and phenol in the resin delivered to P027 and P031. These reports shall be submitted by January 31 of each year.



- (3) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (4) The permittee shall submit deviation (excursion) reports that identify all periods of time when a photochemically reactive material was employed in this emissions unit. These reports shall be submitted within 30 days after the occurrence.
- (5) The permittee shall submit deviation (excursion) reports that identify all periods of time when the percent of free methanol in the formaldehyde exceeds 1. These reports shall be submitted within 30 days after the occurrence.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in Section b)(1). of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Filterable and condensable particulate emissions shall not exceed 29.5 pounds per hour and 129.2 tons per year.\*\*

\*\* Filterable particulate emissions cannot exceed 23.5 pounds per hour.\*\*

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for P031 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart60, Appendix A, Methods 1 - 4 and 5E. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.

To demonstrate compliance with the annual limitation, multiply the hourly emission rate (established from the stack test required above) by 8760 and divide by 2000 to convert to tons per year.

b. Emission Limitation:

Sulfur dioxide emissions shall not exceed 5.3 pounds per hour and 23.0 tons per year



**Applicable Compliance Method:**

The permittee shall conduct, or have conducted, emission testing for P031 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for sulfur dioxide.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart60, Appendix A, Methods 1-4 and 6C. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.

To demonstrate compliance with the annual limitation, multiply the hourly emission rate (established from the stack test required above) by 8760 and divide by 2000 to convert to tons per year.

**c. Emission Limitation:**

Nitrogen oxide emissions shall not exceed 5.3 pounds per hour and 23.0 tons per year.

**Applicable Compliance Method:**

The permittee shall conduct, or have conducted, emission testing for P031 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for nitrogen oxide.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart60, Appendix A, Methods 1 - 4 and 7E. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.

To demonstrate compliance with the annual limitation, multiply the hourly emission rate (established from the stack test required above) by 8760 and divide by 2000 to convert to tons per year.



d. Emission Limitation:

Carbon monoxide emissions shall not exceed 17.5 pounds per hour and 76.7 tons per year.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for P031 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for carbon monoxide.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart60, Appendix A, Methods 1 - 4 and 10. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.

To demonstrate compliance with the annual limitation, multiply the hourly emission rate (established from the stack test required above) by 8760 and divide by 2000 to convert to tons per year.

e. Emission Limitation:

Formaldehyde emissions shall not exceed 8.5 pounds per hour and 37.2 tons per year.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for P031 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for formaldehyde.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart63, Appendix A, Method 316 or 318. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.



To demonstrate compliance with the annual limitation, multiply the hourly emission rate (established from the stack test required above) by 8760 and divide by 2000 to convert to tons per year.

f. Emission Limitation:

Methanol emissions shall not exceed 18.5 pounds per hour.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for P031 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for methanol.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart63, Appendix A, Method 308 or 318. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.

g. Emission Limitation:

Phenol emissions shall not exceed 26.5 pounds per hour.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for P031 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for phenol.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart60, Appendix A, Method 18 or 40CFRPart63, Appendix A, Method 318. Alternative approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.



h. Emission Limitation:

Volatile organic compound emissions shall not exceed 53.6 pounds per hour.

Applicable Compliance Method:

The hourly voc emission limit is a summation of maximum formaldehyde, methanol phenol and natural gas consumption emissions. Compliance with the hourly limitation will be demonstrated by summing the hourly stack test results derived for formaldehyde, methanol and phenol with the hourly voc emissions from natural gas combustion for this emissions unit. Hourly voc emissions from natural gas combustion are derived by multiplying the MMCF usage of the natural gas burners (158) by the AP-42 emission factor for natural gas (5.5 lbs voc/mmcf) from Table 1.4-1, 7/98, and then divide by 8760 to convert from annual to hourly.

i. Emission Limitation:

Methanol emissions from P031, P066 and P128 shall not exceed 45.00 tons per rolling 12-month summation.

Applicable Compliance Method:

For compliance with the annual limitation, see d)(1)g.

j. Emission Limitation:

Phenol emissions from P031, P066 and P128 shall not exceed 50.0 tons per rolling 12-month summation.

Applicable Compliance Method:

For compliance with the annual limitation, see d)(1)h.

k. Emission Limitation:

Volatile organic compound emissions shall not exceed 143.2 tons per rolling 12-month summation.

Applicable Compliance Method:

For compliance with the annual limitation, see d)(1)i.

l. Emission Limitation:

Visible emissions shall not exceed 20% opacity, as a six-minute average

Applicable Compliance Method:

Compliance shall be determined through visible emissions observations performed in accordance with 40CFRPart60, Method 9 and the procedures in OAC rule 3745-17-03(A)(1).



m. Emission Limitation:

Ammonia emissions shall not exceed 40 pounds per hour and 175.2 tons per year.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for P031 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for ammonia.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): US EPA Method CTM-027 or an alternative U.S. EPA approved test method decided upon by Ohio EPA.

- (2) Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Central District Office.

g) Miscellaneous Requirements

- (1) None.



**2. P128, F6/5 Trim**

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

F-5 Cooling Section

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>Filterable and condensable particulate emissions shall not exceed 5.6 pounds per hour and 24.5 tons per year.</p> <p>Volatile organic compound emissions shall not exceed 2.92 pounds per hour.</p> <p>Formaldehyde emissions shall not exceed 2.0 pounds per hour and 8.8 tons per year.</p> <p>Phenol emissions shall not exceed 0.5 pound per hour.</p> <p>Methanol emissions shall not exceed 0.4 pound per hour.</p> <p>Ammonia emissions shall not exceed 5 pounds per hour and 21.9 tons per year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and 17-07(A)(1).</p> <p>See b)(2)a. and c)(1) – (3) below.</p>
b.	OAC rule 3745-17-07(A)(1)	Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average.
c.	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-21-07(G)(2)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	OAC rule 3745-31-05(D)	<p>Methanol emissions from P031, P066 and P128 shall not exceed 45.0 tons per rolling 12-month summation.</p> <p>Phenol emissions from P031, P066 and P128 shall not exceed 50.0 tons per rolling 12-month summation.</p> <p>Volatile organic compound emissions from P031, P066 and P128 shall not exceed 143.2 tons per rolling 12-month summation.</p> <p>See c)(4) below.</p>

(2) Additional Terms and Conditions

a. Particulate emissions shall be vented to a control system which includes a smoke stripper, screen filter and cooling scrubber.

c) Operational Restrictions

(1) The pressure drop across the venturi throat portion of the scrubber shall be maintained within the range of 0.5 - 10 inches water column while the emissions unit is in operation. Upon demonstration of compliance with the hourly emission rate through stack testing, the pressure drop range will be refined.

(2) Phenol formaldehyde resin delivered to the facility shall not exceed a free methanol content of 1%.

(3) Permittee shall only burn natural gas in this emissions unit.

(4) The maximum amount of methanol and phenol in the resin delivered to P027 and P031 combined shall not exceed 156 tons, based upon a rolling, 12-month summation of the resin delivered. To ensure enforceability during the first twelve calendar months of operation after issuance of this permit to install, emissions units P027 and P031 combined shall not exceed the following resin delivered for use limitation:

Month(s)	Maximum Cumulative Allowable Methanol and Phenol in Resin Delivered to P027 and P031 (tons):
----------	--

1

25



1 - 2	45
1 - 3	65
1 - 4	80
1 - 5	90
1 - 6	100
1 - 7	110
1 - 8	120
1 - 9	130
1 - 10	140
1 - 11	150
1 - 12	156

After the first twelve calendar months of operation following the issuance of this permit, compliance with the annual methanol and phenol in resin limitation shall be used upon rolling, 12-month summation of tons of methanol and phenol in the resin delivered to P027 and P031.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

- a. ton(s) of resin delivered to P031;
- b. methanol concentration (%) in resin (an average of the methanol content in the resin taken from the resin delivery certificates received during the year);
- c. phenol concentration (%) (an average of the resin phenol concentration determined from resin delivery certificates received during the year);
- d. total methanol delivered to P031, calculated as follows: a\*b;
- e. total phenol delivered to P031, calculated as follows: a\*c;
- f. total methanol and phenol delivered to P027 and P031 combined (tons), calculated as follows: d + e + M<sub>P027</sub> + P<sub>P027</sub> where M equals methanol and P equals phenol;
- g. methanol emitted from F-5 manufacturing line, calculated as follows: d \* [0.87 (percent of delivered methanol estimated to be emitted over the entire F-5 manufacturing line)];
- h. phenol emitted from F-5 manufacturing line, calculated as follows: e \* [0.87 (percent of delivered phenol estimated to be emitted over the entire F-5 manufacturing line)];
- i. total hours of operations for P128;
- j. formaldehyde emissions from P128 (F<sub>P128</sub>), calculated as follows: 2.0 lbs/hr (hourly maximum) \* i;
- k. total VOC emissions from natural gas combustion from P128 (tons), calculated as follows: [31 MMCF/yr\*( 5.5 lbs voc/mmcf )\*(i) / (8760\*2000)];



- l. total VOC emissions from F-5 manufacturing line (P031, P066 and P128) shall be calculated as follows:  $NG_{P031} + F_{P031} + NG_{P066} + F_{P066} + NG_{P128} + F_{P128} + g$  and h where NG equals natural gas and F equals formaldehyde;
  - m. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the tons of methanol and phenol in the resin delivered to P027 and P031 combined; and
  - n. during the first 12 calendar months of operation following the issuance of this permit, the cumulative tons of methanol and phenol in the resin delivered to P027 and P031 for each calendar month.
- (2) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
  - (3) The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

- a. the pressure drop across the venturi throat portion of the scrubber, in inches of water of water column, on a daily basis.
  - b. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
- e) Reporting Requirements
- (1) The permittee shall submit deviation (excursion) reports that identify all exceedances of the cumulative rolling, 12-month tons of methanol and phenol in the resin delivered to P027 and P031 combined, limitation. In addition, the permittee shall submit deviation (excursion) reports that identify all exceedances during the first 12 calendar months of operation following issuance of this permit, all exceedances of the maximum allowable cumulative tons of methanol and phenol in the resin delivered to P027 and P031 combined.
  - (2) The permittee shall also submit annual reports which specify total methanol, phenol and VOC emissions and total tons of methanol and phenol in the resin delivered to P027 and P031. These reports shall be submitted by January 31 of each year.
  - (3) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
  - (4) The permittee shall submit deviation (excursion) reports that identify all periods of time when the percent of free methanol in the formaldehyde exceeds 1. These reports shall be submitted within 30 days after the occurrence.



- (5) The permittee shall submit deviation (excursion) reports that identify all periods of time during which the static pressure drop across the scrubber was not maintained at or above the required level.

f) Testing Requirements

- (1) Compliance with the emission limitation(s) in Section b)(1). of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

Filterable and condensable particulate emissions shall not exceed 5.6 pounds per hour and 24.5 tons per year.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for P128 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart60, Appendix A, Methods 1 - 4 and 5E. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.

To demonstrate compliance with the annual limitation, multiply the hourly emission rate (established from the stack test required above) by 8760 and divide by 2000 to convert to tons per year.

- b. Emission Limitation:

Formaldehyde emissions shall not exceed 2.0 pounds per hour and 8.8 tons per year.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for P128 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for formaldehyde.



- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart63, Appendix A, Method 316 or Method 318. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.

To demonstrate compliance with the annual limitation, multiply the hourly emission rate (established from the stack test required above) by 8760 and divide by 2000 to convert to tons per year.

c. Emission Limitation:

Methanol emissions shall not exceed 0.4 pound per hour.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for P128 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for methanol.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart63, Appendix A, Method 308 or Method 318. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.

d. Emission Limitation:

Phenol emissions shall not exceed 0.5 pound per hour.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for P128 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for phenol.



- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart60, Appendix A, Method 18 or 40CFRPart63, Appendix A, Method 318. Alternative approved test methods may be used with prior approval from the Ohio EPA.
    - iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.
  - e. Emission Limitation:  
  
Volatile organic compound emissions shall not exceed 2.92 pounds per hour.  
  
Applicable Compliance Method:  
  
The hourly voc emission limit is a summation of maximum formaldehyde, methanol phenol and natural gas consumption emissions. Compliance with the hourly limitation will be demonstrated by summing the hourly stack test results derived for formaldehyde, methanol and phenol with the hourly voc emissions from natural gas combustion for this emissions unit. Hourly voc emissions from natural gas combustion are derived by multiplying the MMCF usage of the natural gas burners (31) by the AP-42 emission factor for natural gas (5.5 lbs voc/mmcf) from Table 1.4-1, 7/98, and then divide by 8760 to convert from annual to hourly.
  - f. Emission Limitation:  
  
Methanol emissions from P031, P066 and P128 shall not exceed 45.0 tons per rolling 12-month summation.  
  
Applicable Compliance Method:  
  
For compliance with the annual limitation, see d)(1)g.
  - g. Emission Limitation:  
  
Phenol emissions from P031, P066 and P128 shall not exceed 50.0 tons per rolling 12-month summation.  
  
Applicable Compliance Method:  
  
For compliance with the annual limitation, see d)(1)h.
  - h. Emission Limitation:  
  
Volatile organic compound emissions from P031, P066 and P128 shall not exceed 143.2 tons per rolling 12-month summation.  
  
Applicable Compliance Method:  
  
For compliance with the annual limitation, see d)(1)l.



i. Emission Limitation:

Visible emissions shall not exceed 20% opacity, as a six-minute average

Applicable Compliance Method:

Compliance shall be determined through visible emissions observations performed in accordance with 40CFRPart60, Method 9 and the procedures in OAC rule 3745-17-03(A)(1).

j. Emission Limitation:

Emission Limitation:

Ammonia emissions shall not exceed 5 pounds per hour and 21.9 tons per year.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for P128 in accordance with the following requirements:

- i. The emission testing shall be conducted within 6 months of emissions unit start-up.
- ii. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for ammonia.
- iii. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): US EPA Method CTM-027 or an alternative U.S. EPA approved test method decided upon by Ohio EPA.
- iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Central District Office.

- (2) Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. 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 Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Central District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Central District



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Final Permit-to-Install**  
**Permit Number:** P0104468  
**Facility ID:** 0145020185  
**Effective Date:** 8/4/2009

Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Central District Office.

- g) Miscellaneous Requirements
  - (1) None.