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

Permit To Install **01-08329**

A. Source Description

Owens Corning Fiberglass (OCF) is undergoing a reinvention of the products it manufactures at its facility. Four, major insulation-manufacturing lines (C4, D6, F5 and F6) will be impacted by the Newark Reinvention Project (NRP). This project will result in a complete shutdown of the D6 insulation-manufacturing line, shutdown and modifications to emissions units that make-up the F5 and F6 insulation-manufacturing lines and modifications to several emissions units that make up the C4 insulation-manufacturing line. Following is a table that illustrates the emissions units that will be effected by the NRP:

C4 LINE	D6 LINE	F5 LINE	F6 LINE
P168 - Mixed Batch Bin	*P166 - Mixed Batch Bin*	*P165 - Mixed Batch Bin*	**P173 - Mixed Batch Bin**
P005 - Electric Melt Furnace	*P007 - Furnace*	*P008 - Furnace*	**P001 - Furnace**
P020 - Forehearth	*P019 - Forehearth*	**P021 - Forehearth**	**P022 - Channel**
P027 - Forming	*P029 - Forming*	**P031 - Forming**	P002 - Forming
P055 - Oven	*P065 - Oven*	**P066 - Oven**	*P003 - Oven*
P073 - Cooling	*P074 - Cooling*	**P128 - Cooling**	*P115 - Cooling*
P184 - Edge Trim System	*Z074 - Edge Trim w/ Penclone*	**P198 - Edge Trim System**	n/a
P088 - Asphalt Applicator	*n/a*	**P182 - Asphalt Applicator**	*Z029 - Asphalt Applicator*
R003 - Overwrap Adhesive	*R004 - Overwrap Adhesive*	***R005 - Overwrap Adhesive***	n/a
P118 - Trim System - for all lines once project completed	*P118 - Trim System - for all lines once project completed*	P118 - Trim System - for all lines once project completed	P118 - Trim System - for all lines once project completed
P197 - Belt Rollup w/ Penclone	*n/a*	**P199 - Belt Rollup w/ Penclone**	n/a

bold - modified emissions unit italics - shut down emissions unit

B. Facility Emissions and Attainment Status

This facility is located in Licking county which is classified as an attainment area. OCF is also on the list of "Named PSD Source Categories" under #27. Actual emissions are over 100 tons per year for PM, PM_{10}, SO_2, NO_x, CO and VOC. Thus, the facility is a major Prevention of Significant Deterioration (PSD) facility.

C. New Source Emissions (PSD Applicability)

The emissions units that will be permitted include P001**,** P021, P022**,** P027, P031, P055, P066, P073, P088, P128, P173, P182, P184, P197, P198 and P199.

The table provided below lists the requested, permit limits for each of the emissions units.

Pollutant (tpy)	P001 (tpy)	P021 (tpy)	P022 (tpy)	P027 (tpy)	P031 (tpy)	P055 (tpy)	P066 (tpy)	P073 (tpy)	P088 (tpy)	P128 (tpy)	P173 (tpy)	P182 (tpy)	P184 (tpy)	P197 (tpy)	P198 and P199 (each)
PM10	14.2	6.2	23.9[1]	122.6[1]	129.2[1]	13.14	17.5[1]	16.9[1]	1.3	24.5[1]	0.002	0.38	0.16	0.32	0.54, 0.26
SO2	9.53	0.15	0.57	43.8[2]	23	2.85	2.85	0	0	0.01	0	0	0	0	0
NOx	217.9[3]	1.55	1.55	17.5	23	61.3[3]	61.3[3]	0	0	1.5	0	0	0	0	0
CO	7.4	1.31	1.31	61.3	76.65	91.98	91.98	0	0	1.3	0	0	0	0	0
VOC	0.8	0.09	0.09	57.85[4]	130.6[4]	0.91	2.05	3.8	4.5	10.5	0	1.36	0	0	0

1 - emissions unit triggers PSD for PM_{10}
2 - emissions unit triggers PSD for SO_2
3 - emissions unit triggers PSD for NO_x
4 - emissions unit triggers PSD for VOC

As the table indicates, several emissions units trigger PSD for PM_{10}, SO_2, NO_x and VOC. In order to avoid PSD, OCF proposed to "net out" with the shut down of the D6 insulation-manufacturing line, emissions units from the F5 and F6 insulation-manufacturing lines and place federally enforceable restrictions on binder and niter usage.

In order to perform the netting calculations, potential emissions (permit limits based on 8760 or a federally enforceable restriction) are subtracted from baseline emissions (the average of the actual emissions for the previous two years). The emission factors used for most of these calculations are based on pooled, data sets of information which originated from internal stack tests on similar emissions units at OCF's facilities nation-wide. AP-42 and RACM are also used in the derivation of some of the emission estimates used in determining baseline emissions as well as potential emissions. The netting calculation is performed in Table 3.

Table 3. Netting Calculation for Owens Corning Newark Reinvention Project Permit

Pollutant	Baseline Emissions[1] (tpy)	Proposed Modification Emissions[2] (tpy)	Net Emissions[3] (tpy)
PM_{10}	466.5	373	-93.5
SO_2	62.3	82.8	20.5
NO_x	374.3	387.4	13.1
VOC	188.6	221	32.4
Total	1091.7	1064.9	-26.8

1 - Baseline Emissions = emission estimates (actual emissions) for last two years of operation at OCF (most representative of normal operation) for all emissions units that will experience an increase or decrease in emissions as a result of the NRP

2 - Proposed Modification Emissions = requested emissions for NRP (decreases and increases in emissions for all emissions units affected by project)

3 - Net Emissions = baseline emissions - proposed modification emissions

D. Conclusion

Through shutting down an entire insulation-manufacturing line, shutting down emissions units from two insulation-manufacturing lines and placing federal restrictions on binder and niter usage, Owens Corning can "net out" of PSD review for PM_{10}, SO_2, NO_x and VOC.

State of Ohio Environmental Protection Agency

RE: DRAFT PERMIT TO INSTALL **CERTIFIED MAIL**
LICKING COUNTY

Street Address: Mailing Address:
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329 Lazarus Gov. Center

Application No: 01-08329

DATE: 6/21/2001

Owens Corning Manufacturing Facility
Mark Arnold
Post Office Box 3012
Newark, OH 430583012

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 of 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 **$5400** 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.
Very truly yours,

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

CC: USEPA **CDO**

DRAFT PERMIT TO INSTALL 01-08329

Application Number:	01-08329
APS Premise Number:	0145020185
Permit Fee:	**To be entered upon final issuance**
Name of Facility:	Owens Corning Manufacturing Facility
Person to Contact:	Mark Arnold
Address:	Post Office Box 3012 Newark, OH 430583012

Location of proposed air contaminant source(s) [emissions unit(s)]:
400 Case Ave
Newark, Ohio

Description of proposed emissions unit(s):
Reinvention project.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

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

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

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

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.10 below if no deviations occurred during the quarter.

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

iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

2. Scheduled Maintenance/Malfunction Reporting

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

3. Risk Management Plans

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

4. Title IV Provisions

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

5. Severability Clause

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

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

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

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally

applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

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

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit To Operate Application

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

3745-77-08(C)(3)(d).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35 , the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

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.

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

1. Compliance Requirements

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

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

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

3. Permit Transfers

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

4. Air Pollution Nuisance

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

5. Termination of Permit To Install

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

be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

6. Construction of New Sources(s)

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

7. Public Disclosure

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

8. Applicability

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

9. Construction Compliance Certification

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

10. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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

C. Permit To Install Summary of Allowable Emissions

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

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

Emissions Unit ID: P001

Pollutant	Tons Per Year
Particulate	370.7
Sulfur Dioxide	82.1
Nitrogen Oxide	385.8
Carbon Monoxide	334.1
VOC	211.7
Formaldehyde	68.1
Phenol	70.9
Methanol	63.84
Ammonia	333.8
Chlorides	1.76

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

1. 40CFR63, Subpart NNN - MACT Applicability

   a. P001 will comply with the particulate emission standard and applicable requirements for this standard found in 40CFR63, Subpart NNN - National Emission Standards for Hazardous Air Pollutants for Wool Fiberglass Manufacturing upon issuance of this permit.

   b. Emissions units that make-up the C-4 rotary spin wool fiberglass manufacturing line (P027, P055 and P073) and emissions units that make-up the F-5 rotary spin wool fiberglass manufacturing line (P031, P066 and P128) will comply with the formaldehyde emission standard and applicable requirements for this standard found in 40CFR63, Subpart NNN - National Emission Standards for Hazardous Air Pollutants for Wool Fiberglass Manufacturing upon issuance of this permit.

2. The permittee is allowed a shakedown period of 90 days on the C-4 line to ensure that technical/operational uncertainties are resolved prior to the termination of the D-6 line. During this shakedown period, the permittee is allowed to operate the D-6 line as the primary source for Qualified Products that the C-4 line will eventually manufacturer, solely.

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

None.

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements
P001: 150 tpd F-6 glass melting furnace with baghouse and continuous opacity monitor	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-11(B)(1)
	OAC rule 3745-21-08(B) and OAC rule 3745-23-06(B)
	40 CFR 63, subpart NNN
	OAC rule 3745-31-05(D)

Applicable Emissions Limitations/Control Measures	
Nitrogen oxide emissions shall not exceed 49.74 pounds per hour.	average. See A.I.2.d below.
Nitrogen oxide emissions from natural gas combustion shall not exceed 8.8 tons per year.	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). None, see A.I.2.c below.
Particulate emissions shall not exceed 3.125 pounds per hour and 13.69 tons per year.	0.5 pound of particulate per ton of glass pulled Nitrogen oxide emissions from niter usage shall not exceed 208.3 tons per rolling 12-month summation.
Sulfur dioxide emissions shall not exceed 2.2 pounds per hour and 9.5 tons per year.	See A.II.1 below.
Chlorides emissions shall not exceed 0.4 pound per hour and 1.76 tons per year.	
Carbon monoxide emissions shall not exceed 1.68 pounds per hour and 7.4 tons per year.	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1) and 40 CFR Part 60, Subpart NNN.	
See A.I.2.a-b and A.II.3 below.	
Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute	

2. Additional Terms and Conditions

2.a The hourly and annual limitation(s) for this emissions unit were established to reflect the potential to emit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with this limit.

2.b Permittee shall control particulate emissions through the use of a baghouse.

2.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 and 3745-23-06.

2.d The permittee shall monitor opacity emissions using a continuous opacity monitoring system.

II. Operational Restrictions

1. The maximum annual niter usage for P001 shall not exceed 385 tons, based upon a rolling, 12-month summation of the niter usage. To ensure enforceability during the first twelve calendar months of operation after issuance of this permit to install, emissions unit P001 shall not exceed the following niter usage limitation:

Maximum Allowable Cumulative Niter Usage For:

Month(s)	(tons)
1	80.0
1 - 2	140
1 - 3	190
1 - 4	240
1 - 5	285
1 - 6	325
1 - 7	335
1 - 8	345
1 - 9	355
1 - 10	365
1 - 11	375
1 - 12	385

After the first twelve calendar months of operation following the issuance of this permit, compliance with the annual niter usage shall be based upon a rolling, 12-month summations of the

niter usage.

2. The pressure drop across the baghouse shall be maintained within the range of 3 - 12 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.

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

III. Monitoring and/or Recordkeeping Requirements

1. Within 60 days of the effective date of this permit or modification to the system, the permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from P001. Such continuous monitoring and recording equipment shall follow the requirements detailed in 40 CFR Part 60.13.

   The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) basis, daily zero/span calibration checks, and manual calibration adjustments.

2. The permittee shall maintain monthly records of the following information:

   a. the amount of niter used (tons);

   b. the total nitrogen oxide emissions from niter usage, in tons, using the following formula: {tons of niter used per month} * {percentage of complete dissociation from niter (sodium nitrate) to nitrogen dioxide - 54.1%};

   c. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of nitrogen oxide emissions from niter usage and the rolling, 12-month summation of niter usage (tons); and

   d. during the first 12 calendar months of operation following the issuance of this permit, the monthly cumulative nitrogen oxide emissions from niter usage (tons) and the monthly cumulative amount of niter used for each calendar month (tons).

3. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

4. 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 per shift basis.

IV. Reporting Requirements

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Central District Office documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

   The permittee shall submit reports within 30 days following the end of each calendar quarter to the Central District Office documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

   If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the cumulative rolling, 12-month niter usage rate 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 niter usage rate limitations.

3. The permittee shall also submit annual reports which specify nitrogen oxide emissions from niter usage from emissions unit P001. These reports shall be submitted by January 31 of each year.

4. 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.

5. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the

allowable range specified above.

6. The quarterly deviation reports shall be submitted in accordance with the reporting requirements specified in Part I - General Term and Condition A.1.

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 methods:

   a. Emission Limitation:
   Nitrogen oxide emissions shall not exceed 49.74 pounds per hour.

   Applicable Compliance Method:
   Compliance shall be determined by summing the hourly nitrogen oxide emissions from niter usage and natural gas combustion.

   Multiply the annual tons of niter used by 0.541 to determine the annual nitrogen oxide emissions from niter usage. Multiply the annual MMCF usage of the natural gas burners (175.2) by the AP-42 emission factor for natural gas (100 lbs nitrogen oxide/mmcf) from Table 1.4-1, 7/98, and then divide by 2000 to convert to ton(s) per year to determine the annual nitrogen oxide emissions from natural gas combustion. Add these two annual values together and then divide by 8760 to calculate the hourly nitrogen oxide emission rate.

   If required, the permittee shall demonstrate compliance with this emission limitation through emission testing in accordance with 40CFRPart60, Appendix A, Method 7E.

   b. Emission Limitation:
   Nitrogen oxide emissions from natural gas combustion shall not exceed 8.8 tons per year.

   Applicable Compliance Method:
   Multiply the annual MMCF usage of the natural gas burners (175.2) by the AP-42 emission factor for natural gas (100 lbs nitrogen oxide/mmcf) from Table 1.4-1, 7/98, and then divide by 2000 to convert to ton(s) per year.

   c. Emission Limitation:
   Nitrogen oxide emissions from niter usage shall not exceed 208.3 tons per cumulative, rolling 12-month smmation.

Applicable Compliance Method:
See section A.III.2.c - d.

d. Emission Limitation:
Particulate emissions shall not exceed 3.125 pounds per hour and 13.69 tons per year.

Applicable Compliance Method:
See A.V.2 below.

e. Emission Limitation:
Sulfur dioxide emissions shall not exceed 2.2 pounds per hour and 9.5 tons per year.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P001 in accordance with the following requirements:

1. The emission testing shall be conducted within 3 months of emissions unit start-up.

2. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for sulfur dioxide.

3. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart60, Appendix A, Method 6C. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

4. 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.

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.

f. Emission Limitation:
Chlorides emissions shall not exceed 0.4 pound per hour and 1.76 tons per year.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with this emission limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 26.

g. Emission Limitation:
Carbon monoxide emissions shall not exceed 1.68 pounds per hour and 7.4 tons per year.

Emission Limitation:
Compliance with the annual limitation will be demonstrated by multiplying the annual MMCF usage of the natural gas burners (175.2) by the AP-42 emission factor for natural gas combustion (84.0 lbs carbon monoxide/mmcf) from Table 1.4-1, 7/98, and then divide by 2000 to convert to ton(s) per year.

Compliance with the hourly limitation will be demonstrated by multiplying the annual MMCF usage of the natural gas burners (175.2) by the AP-42 emission factor for natural gas combustion (84.0 lbs carbon monoxide/mmcf) from Table 1.4-1, 7/98, and then dividing by 8760 hours per year.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing in accordance with 40CFRPart60, Appendix A, Method 10.

h. Emission Limitation:
Visible emissions shall not exceed 20% opacity, as a six-minute average

Applicable Compliance Method:
Compliance shall be determined through the use of a continuous opacity monitoring system.

2. Emission Limitation:
0.5 pound particulate per ton of glass pulled

Applicable Compliance Method:

Emissions Unit ID: P001

The permittee shall demonstrate compliance with this emission limitation in accordance with 40CFRPart63, Subpart NNN.

VI. Miscellaneous Requirements

1. Certification Procedure

   Prior to the installation of the continuous opacity monitoring system, the permittee shall submit information detailing the proposed location of the sampling site following the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 1 for approval by the Ohio EPA, Central Office.

   Within 30 days of system start-up, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and as specified in 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the Central District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the Central District Office pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I), and follows the requirements specified in 40 CFR Part 60, Appendix B, Performance Specification 1 including section 5.1.9.

2. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P001: 150 tpd F-6 glass melting furnace with baghouse and opacity monitor		

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

Emissions Unit ID: P001

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements
P021: 150 tpd F-5 glass forehearth (with 62 MMCF/yr burner)	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-17-11(B)(1)
	OAC rule 3745-21-08(B) and OAC rule

3745-23-06(B)	Applicable Emissions Limitations/Control Measures Particulate emissions shall not exceed 1.43 pounds per hour and 6.4 tons per year. Nitrogen oxide emissions shall not exceed 0.71 pound per hour and 3.1 tons per year. Carbon monoxide emissions shall not exceed 0.6 pound per hour and 2.6 tons per year. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). See A.I.2.a and A.II.1 below. Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average. The emission limitation specified by this rule is less stringent than the emission limitation pursuant to OAC rule 3745-31-05(A)(3). None, see A.I.2.b. below.

2. Additional Terms and Conditions

2.a The hourly and annual limitation(s) for this emissions unit were established to reflect the potential to emit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with this limit.

2.b 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.

II. Operational Restrictions

1. Permittee shall only burn natural gas in this emissions unit.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

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

   a. Emission Limitation:
   Particulate emissions shall not exceed 1.43 pounds per hour and 6.4 tons per year.

   Applicable Compliance Method:
   The permittee shall conduct, or have conducted, emission testing for P021 in accordance with the following requirements:

      1. The emission testing shall be conducted within 3 months of emissions unit start-up.

      2. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.

3. 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 5. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

4. 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.

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.

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:
Nitrogen oxide emissions shall not exceed 0.71 pound per hour and 3.1 tons per year.

Applicable Compliance Method:
To demonstrate compliance with the annual limitation, multiply the MMCF usage of the natural gas burners (62 MMCF) by the AP-42 emission factor for natural gas (100 lbs nitrogen oxide/mmcf) from Table 1.4-1, 7/98, and then divide by 2000 to convert to ton(s)

per year.

Divide the annual emission rate (see above) by 8760 to derive the hourly emission rate.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing in accordance with 40CFRPart60, Appendix A, Method 7E.

c. Emission Limitation:
Carbon monoxide emissions shall not exceed 0.6 pound per hour and 2.6 tons per year.

Applicable Compliance Method:
Compliance with the annual limitation will be demonstrated by multiplying the annual MMCF usage of the natural gas burner(s) (62 MMCF) by the AP-42 emission factor for natural gas combustion (84.0 lbs carbon monoxide/mmcf) from Table 1.4-1, 7/98, and then divide by 2000 to convert to ton(s) per year.

Divide the annual emission rate (see above) by 8760 to derive the hourly emission rate.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing in accordance with 40CFRPart60, Appendix A, Method 10.

d. 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).

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P021: 150 tpd F-5 glass forehearth (with 62 MMCF/yr burner)		

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

Emissions Unit ID: P022

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P022: 150 tpd F-6 glass channel (with 51 MMCF/yr burner)	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 5.5 pounds per hour and 24.0 tons per year. Nitrogen oxide emissions shall not exceed 0.6 pound per hour and 2.5 tons per year. Carbon monoxide emissions shall not exceed 0.5 pound per hour and 2.1 tons per year. Visible particulate emissions shall not exceed twenty per cent opacity, as a three-minute average. See A.I.2.a and A.II.1 below.
	OAC rule 3745-17-07(B) and 3745-17-08(B)	This facility is not located in an Appendix A area as described in OAC rule 3745-17-08; therefore, OAC rules 3745-17-07 and 3745-17-08 do not apply to this fugitive emissions unit.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08(B) and OAC rule 3745-23-06(B)	None, see A.I.2.b. below.

2. Additional Terms and Conditions

2.a The hourly and annual limitation(s) for this emissions unit were established to reflect the potential to emit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with this limit.

2.b 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.

II. Operational Restrictions

1. Permittee shall only burn natural gas in this emissions unit.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

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

   a. Emission Limitation:
   Particulate emissions shall not exceed 5.5 pounds per hour and 24.0 tons per year.

   Applicable Compliance Method:
   The permittee shall conduct, or have conducted, emission testing for P022 in accordance with the following requirements:

      i. The emission testing shall be conducted within 3 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, Methods 1-4 and 5. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

iv. Testing shall be conducted on a similar emissions unit that is representative of operational practices on P022 in order to establish an emission factor. 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.

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.

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:
Nitrogen oxide emissions shall not exceed 0.6 pound per hour and 2.5 tons per year.

Applicable Compliance Method:
To demonstrate compliance with the annual limitation, multiply the MMCF usage of the natural gas burners (51 MMCF) by the AP-42 emission factor for natural gas (100 lbs

nitrogen oxide/mmcf) from Table 1.4-1, 7/98, and then divide by 2000 to convert to ton(s) per year.

Compliance with the hourly limitation will be demonstrated by multiplying the annual MMCF usage of the natural gas burners (51 MMCF) by the AP-42 emission factor for natural gas combustion (84.0 lbs carbon monoxide/mmcf) from Table 1.4-1, 7/98, and then dividing by 8760 hours per year.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing in accordance with 40CFRPart60, Appendix A, Method 7E.

c. Emission Limitation:
Carbon monoxide emissions shall not exceed 0.5 pound per hour and 2.1 tons per year.
Applicable Compliance Method:
Compliance with the annual limitation will be demonstrated by multiplying the annual MMCF usage of the natural gas burner(s) (51 MMCF) by the AP-42 emission factor for natural gas combustion (84.0 lbs carbon monoxide/mmcf) from Table 1.4-1, 7/98, and then divide by 2000 to convert to ton(s) per year.

Compliance with the hourly limitation will be demonstrated by multiplying the annual MMCF usage of the natural gas burners (51 MMCF) by the AP-42 emission factor for natural gas combustion (84.0 lbs carbon monoxide/mmcf) from Table 1.4-1, 7/98, and then dividing by 8760 hours per year.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing in accordance with 40CFRPart60, Appendix A, Method 10.

d. 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).

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P022: 150 tpd F-6 glass channel (with 51 MMCF/yr burner)		

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
P027: C-4 Fiber and Pack Forming	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)(1)
		OAC rule 3745-17-11(B)(1)
		OAC rule 3745-21-07(G)(2)
		OAC rule 3745-21-08(B) and OAC rule 3745-23-06(B)
		OAC rule 3745-31-05(D)

Applicable Emissions Limitations/Control Measures	
Filterable and condensable particulate emissions shall not exceed 28.0 pounds per hour and 122.6 tons per year.	17-07(A)(1). See A.I.2.a - b. and A.II.1 - 2 below.
Sulfur dioxide emissions shall not exceed 10 pounds per hour and 43.8 tons per year.	Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
Nitrogen oxide emissions shall not exceed 4 pounds per hour and 17.5 tons per year.	Exempt, (See A.II.3). None, see A.I.2.c below.
Carbon monoxide emissions shall not exceed 14 pounds per hour and 61.3 tons per year.	Methanol emissions from P027, P055 and P073 shall not exceed 19.4 tons per rolling 12-month summation.
Formaldehyde emissions shall not exceed 4 pounds per hour and 17.5 tons per year.	Phenol emissions from P027, P055 and P073 shall not exceed 21.4 tons per rolling 12-month summation.
Methanol emissions shall not exceed 11.5 pounds per hour.	Volatile organic compound emissions from P027, P055 and P027 shall not exceed 62.6 tons per rolling 12-month summation. See A.II.4 below.
Phenol emissions shall not exceed 16.5 pounds per hour.	
Volatile organic compound emissions shall not exceed 32.11 pounds per hour.	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and	

2. Additional Terms and Conditions

2.a The permittee shall control particulate emissions using a system consisting of a drop-out box, fans, cyclonic separators, penthouse, moisture eliminator and mixing chamber.

2.b Filterable particulate emissions shall not exceed 21.7 pounds per hour per the 1980 Consent Decree, State of Ohio versus Owens-Corning Fiberglas Corporation.

2.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 and 3745-23-06(B).

II. Operational Restrictions

1. Formaldehyde 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 based upon a rolling, 12-month summation of tons of methanol and phenol in the resin delivered to P027 and P031.

III. Monitoring and/or Recordkeeping Requirements

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

   a. ton(s) of resin delivered to P027;

   b. methanol concentration (%) in resin (an average of the methanol content in the formaldehyde taken from the delivery certificates received during the year);

   c. phenol concentration (%) (an average of the phenol concentration determined from minimum weekly internal testing of resin);

   d. total methanol delivered to P027 (tons), calculated as follows: a*b;

   e. total phenol delivered to P027 (tons), calculated as follows: a*c;

   f. total methanol and phenol delivered to P027 and P031 combined (tons), calculated as follows: $d + e + M_{P031} + P_{P031}$ where M stands for methanol and P stands for phenol;

   g. methanol emitted from C-4 manufacturing line, calculated as follows: d*[0.87(percent of delivered methanol estimated to be emitted over the entire C-4 manufacturing line)];

   h. phenol emitted from C-4 manufacturing line, calculated by e*[0.87(percent of delivered phenol estimated to be emitted over the entire C-4 manufacturing line)];

   i. total hours of operations for P027;

   j. formaldehyde emissions from P027 (F_{P027}), calculated as follows: 4 lbs/hr (hourly maximum) * i;

k. total VOC emissions from natural gas combustion from P027 (tons), calculated as follows: [175.2 MMCF/yr*(5.5 lbs voc/mmcf)*(i)/ (8760 * 2000)];

l. total VOC emissions from C-4 manufacturing line (P027, P055 and P073) shall be calculated as follows: $NG_{P027} + F_{P027} + NG_{P055} + F_{P055} + F_{P073} + g + h$
where NG equals natural gas combustion 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 combined 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.

IV. 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, 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. 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.

V. Testing Requirements

Emissions Unit ID: P027

1. Compliance with the emission limitation(s) in Section A.I. 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 28.0 pounds per hour and 122.6 tons per year.**

   ** Filterable particulate emissions cannot exceed 21.7 pounds per hour.**

   Applicable Compliance Method:
   The permittee shall conduct, or have conducted, emission testing for P027 in accordance with the following requirements:

   i. The emission testing shall be conducted within 3 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 10 pounds per hour and 43.8 tons per year

   Applicable Compliance Method:
   The permittee shall conduct, or have conducted, emission testing for P027 in accordance with the following requirements:

   i. The emission testing shall be conducted within 3 months of emissions unit startup.

   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 4 pounds per hour and 17.5 tons per year.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P027 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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 14 pounds per hour and 61.3 tons per year.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P027 in accordance

with the following requirements:

i. The emission testing shall be conducted within 3 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 4 pounds per hour and 17.5 tons per year.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P027 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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.

Emissions Unit ID: P027

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 11.5 pounds per hour.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P027 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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 16.5 pounds per hour.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P027 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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 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.

h. Emission Limitation:
Volatile organic compound emissions shall not exceed 32.11 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 (175.2) 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 P027, P055 and P073 shall not exceed 19.4 tons per rolling, 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.g.

j. Emission Limitation:
Phenol emissions from P027, P055 and P073 shall not exceed 21.4 tons per rolling, 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.h.

k. Emission Limitation:
Volatile organic compound emissions from P027, P055 and P073 shall not exceed 62.6 tons per rolling, 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.l.

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).

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

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

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

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P027: C-4 Fiber and Pack Forming	OAC rule 3745-31-05(D)	Ammonia emissions shall not exceed 26 pounds per hour and 113.9 tons per year.

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

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

1. Emission Limitation:
Ammonia emissions shall not exceed 26 pounds per hour and 113.9 tons per year.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, emission testing for P027 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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): 40CFRPart63, Appendix A, Method 301 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.

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

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.

VI. Miscellaneous Requirements

None.

Emissions Unit ID: P031

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
P031: F-5 Fiber and Pack Forming	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)(1)
		OAC rule 3745-17-11(B)(1)
		OAC rule 3745-21-07(G)(2)
		OAC rule 3745-21-08(B) and rule 3745-23-06(B).
		OAC rule 3745-31-05(D)

Applicable Emissions Limitations/Control Measures	
Filterable and condensable particulate emissions shall not exceed 29.5 pounds per hour and 129.2 tons per year.	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D). See A.I.2.a - b and A.II.1 - 2 below.
Sulfur dioxide emissions shall not exceed 5.3 pounds per hour and 23.0 tons per year.	Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
Nitrogen oxide emissions shall not exceed 5.3 pounds per hour and 23.0 tons per year.	Exempt, (See A.II.3).
Carbon monoxide emissions shall not exceed 17.5 pounds per hour and 76.7 tons per year.	None, see A.I.2.c below.
Formaldehyde emissions shall not exceed 8.5 pounds per hour and 37.2 tons per year.	Methanol emissions from P031, P066 and P128 shall not exceed 44.44 tons per rolling 12-month summation. Phenol emissions from P031, P066 and P128 shall not exceed 49.5 tons per rolling 12-month summation.
Methanol emissions shall not exceed 18.5 pounds per hour.	Volatile organic compound emissions from P031, P066 and P128 shall not exceed 143.2 tons per rolling 12-month summation.
Phenol emissions shall not exceed 26.5 pounds per hour.	
Volatile organic compound emissions shall not exceed 53.6 pounds per hour.	

2. Additional Terms and Conditions

2.a The permittee shall control particulate emissions using a system consisting of a n enlarged pack forming chamber and drop-out box, one forming fan and four cyclones.

2.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.

2.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 and 3745-23-06.

II. Operational Restrictions

1. Formaldehyde 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.

III. 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 formaldehyde taken from the delivery certificates received during the year);

   c. phenol concentration (%) (an average of the phenol concentration determined from minimum weekly internal testing of resin);

   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 lbs/hr (hourly maximum) * i;

   k. total VOC emissions from natural gas combustion from P031 (tons), calculated as follows: [158 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 maintain records for each material employed in this emissions unit that indicate whether or not the material is a photochemically reactive material.

IV. 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 0.7. These reports shall be submitted within 30 days after the occurrence.

V. Testing Requirements

Emissions Unit ID: P031

1. Compliance with the emission limitation(s) in Section A.I. 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 3 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 3 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 3 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 3 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 3 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 3 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 3 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 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.

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 44.44 tons per rolling 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.g.

j. Emission Limitation:
Phenol emissions from P031, P066 and P128 shall not exceed 49.5 tons per rolling 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.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 A.III.1.l.

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).

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.

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P031: F-5 Fiber and Pack Forming	OAC rule 3745-31-05(D)	Ammonia emissions shall not exceed 42 pounds per hour and 184.0 tons per year.

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

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

1. Emission Limitation:
Ammonia emissions shall not exceed 42 pounds per hour and 184.0 tons per year.

Emissions Unit ID: P031

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 3 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): 40CFRPart63, Appendix A, Method 301 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.

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

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.

VI. Miscellaneous Requirements

None.

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
P055: C-4 Curing Oven with incinerator	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-17-07(A)(1)
		OAC rule 3745-17-11(B)(1)
		OAC rule 3745-21-07(G)(1)
		OAC rule 3745-21-08(B) and 3745-23-06(B)
		OAC rule 3745-31-05(D)

Applicable Emissions Limitations/Control Measures	
Filterable and condensable particulate emissions shall not exceed 3.0 pounds per hour and 13.1 tons per year.	Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average.
Sulfur dioxide emissions shall not exceed 0.65 pound per hour and 2.9 tons per year.	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
Nitrogen oxide emissions shall not exceed 14 pounds per hour and 61.3 tons per year.	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
Carbon monoxide emissions shall not exceed 21 pounds per hour and 92 tons per year.	None, see A.I.2.c below.
Formaldehyde emissions shall not exceed 0.1 pound per hour and 0.4 ton per year.	Methanol emissions from P027, P055 and P073 shall not exceed 19.4 tons per rolling 12-month summation.
Methanol emissions shall not exceed 0.1 pound per hour.	Phenol emissions from P027, P055 and P073 shall not exceed 21.4 tons per rolling 12-month summation.
Phenol emissions shall not exceed 0.1 pound per hour.	Volatile organic compound emissions from P027, P055 and P073 shall not exceed 62.6 tons per rolling 12-month summation.
Volatile organic compounds emissions shall not exceed 0.38 pound per hour.	See A.II.4 below.
The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and 17-07(A)(1).	
See A.I.2.a - b and A.II.1 - 2 below.	

2. Additional Terms and Conditions

2.a Filterable particulate emissions shall not exceed 2.4 pounds per hour per the 1980 Consent Decree, State of Ohio versus Owens-Corning Fiberglas Corporation.

2.b The permittee shall vent all emissions through an incinerator.

2.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 and 3745-23-06.

II. Operational Restrictions

1. Permittee shall only burn natural gas in this emissions unit.

2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature to be determined during the performance test required by the MACT (see Part II.A.1.b.)] that demonstrates the emissions unit is in compliance with the hourly permit limit.

3. Formaldehyde delivered to the facility shall not exceed a free methanol content of 1%.

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.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

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

   a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that will demonstrate the emissions unit is in compliance; and

   b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

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 monthly records of the following information:

   a. ton(s) of resin delivered to P027;

   b. methanol concentration (%) in resin (an average of the methanol content in the formaldehyde taken from the delivery certificates received during the year);

   c. phenol concentration (%) (an average of the phenol concentration determined from minimum weekly internal testing of resin);

   d. total methanol delivered to P027, calculated as follows: a*b;

e. total phenol delivered to P027, calculated as follows: a*c;

f. total methanol and phenol delivered to P027 and P031 combined (tons), calculated as follows: d + e + M_{P031} + P_{P031} where M equals methanol and P equals phenol;

g. methanol emitted from C-4 manufacturing line, calculated as follows: d * [0.87 (percent of delivered methanol estimated to be emitted over the entire C-4 manufacturing line);

h. phenol emitted from C-4 manufacturing line, calculated as follows: e * [0.87 (percent of delivered phenol estimated to be emitted over the entire C-4 manufacturing line);

i. total hours of operations for P055;

j. formaldehyde emissions from P055 (F_{P055}), calculated as follows: 0.1 lb/hr (hourly maximum) * i;

k. total VOC emissions from natural gas combustion from P055 (tons), calculated as follows: [126 MMCF/yr*(5.5 lbs voc/mmcf)*(i) / (8760*2000)];

l. total VOC emissions from C-4 manufacturing line (P027, P055 and P073) shall be calculated as follows: NG_{P027} + F_{P027} + NG_{P073} + F_{P073} + F_{P055} + 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.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified above.

2. 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.

3. 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.

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 methods:

   a. Emission Limitation:
   Filterable and condensable particulate emissions shall not exceed 3.0 pounds per hour and 13.1 tons per year.**

   ** Filterable particulate emissions cannot exceed 2.4 pounds per hour.**

   Applicable Compliance Method:
   The permittee shall conduct, or have conducted, emission testing for P055 in accordance with the following requirements:

      i. The emission testing shall be conducted within 3 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 0.65 pound per hour and 2.9 tons per year

   Applicable Compliance Method:
   The permittee shall conduct, or have conducted, emission testing for P055 in accordance with the following requirements:

      i. The emission testing shall be conducted within 3 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 14 pounds per hour and 61.3 tons per year.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P055 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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 21 pounds per hour and 92 tons per year.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P055 in accordance

with the following requirements:

i. The emission testing shall be conducted within 3 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 0.1 pound per hour and 0.4 tons per year.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P055 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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.

Emissions Unit ID: P055

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 0.1 pound per hour.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P055 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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): 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.

g. Emission Limitation:
Phenol emissions shall not exceed 0.1 pound per hour.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P055 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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, Method 18 or 40CFRPart63, Appendix A, 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.

h. Emission Limitation:
Volatile organic compound emissions shall not exceed 0.38 pound 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 (126) 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 P027, P055 and P073 shall not exceed 19.4 tons per rolling, 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.g.

j. Emission Limitation:
Phenol emissions from P027, P055 and P073 shall not exceed 21.4 tons per rolling, 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.h.

k. Emission Limitation:
Volatile organic compound emissions from P027, P055 and P073 shall not exceed 62.6 tons per rolling, 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.l.

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).

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

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

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

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P055: C-4 Curing Oven with incinerator	OAC rule 3745-31-05(D)	Ammonia emissions shall not exceed 2.0 pounds per hour and 8.8 tons per year.

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

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

1. Emission Limitation:
Ammonia 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 P066 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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): 40CFRPart63, Appendix A, Method 301 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.

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

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.

VI. Miscellaneous Requirements

None.

Emissions Unit ID: P066

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements
P066: F-5 Curing Oven with incinerator	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-21-07(G)(1)
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-17-11(B)(1)
	OAC rule 3745-21-08(B) and 3745-23-06(B)
	OAC rule 3745-31-05(D)

Applicable Emissions Limitations/Control Measures	
Filterable and condensable particulate emissions shall not exceed 4.0 pounds per hour and 17.5 tons per year.	the requirements of OAC rule 3745-31-05(D) and 17-07(A)(1). See A.I.2.a - b. and A.II.1 - 2 below. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
Sulfur dioxide emissions shall not exceed 0.65 pound per hour and 2.9 tons per year.	Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average.
Nitrogen oxide emissions shall not exceed 14 pounds per hour and 61.3 tons per year.	The requirements on this rule are less stringent than the best available technology pursuant to OAC rule 3745-31-05(A)(3).
Carbon monoxide emissions shall not exceed 21 pounds per hour and 92 tons per year.	None, see A.I.2.b below.
Formaldehyde emissions shall not exceed 0.25 pound per hour and 1.1 ton per year.	Methanol emissions from P031, P066 and P128 shall not exceed 44.44 tons per rolling 12-month summation.
Methanol emissions shall not exceed 0.1 pound per hour.	Phenol emissions from P031, P066 and P128 shall not exceed 49.5 tons per rolling 12-month summation.
Phenol emissions shall not exceed 0.1 pound per hour.	Volatile organic compound emissions from P031, P066 and P128 shall not exceed 143.2 tons per rolling 12-month summation.
Volatile organic compounds emissions shall not exceed 0.6 pound per hour.	See A.II.4 below.
The requirements of this rule also include compliance with	

2. Additional Terms and Conditions

2.a The permittee shall control volatile organic compound emissions by using an incinerator.

2.b 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 and 3745-23-06.

II. Operational Restrictions

1. Permittee shall only burn natural gas in this emissions unit.

2. The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature to be determined during the performance test required by the MACT (see Part II.A.1.b.)] that demonstrates the emissions unit in compliance with the hourly permit limit.

3. Formaldehyde delivered to the facility shall not exceed a free methanol content of 1%.

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.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

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

   a. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that will demonstrate the emissions unit is in compliance; and

   b. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

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 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 formaldehyde taken from the delivery certificates received during the year);

   c. phenol concentration (%) (an average of the phenol concentration determined from minimum weekly internal testing of resin);

   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 P066;

j. formaldehyde emissions from P066 (F_{P066}), calculated as follows: 0.25 lb/hr (hourly maximum) * i;

k. total VOC emissions from natural gas combustion from P066 (tons), calculated as follows: [239 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: $NG_{P031} + F_{P031} + NG_{P128} + F_{P128} + F_{P066}$ + 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.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified above.

2. 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.

3. 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.

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 methods:

Emissions Unit ID: P066

a. Emission Limitation:
Filterable and condensable particulate emissions shall not exceed 4.0 pounds per hour and 17.5 tons per year.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P066 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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 0.65 pound per hour and 2.9 tons per year

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P066 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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 14 pounds per hour and 61.3 tons per year.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P066 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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 21 pounds per hour and 92 tons per year.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P066 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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 0.25 pound per hour and 1.1 tons per year.
Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P066 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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.

f. Emission Limitation:
Methanol emissions shall not exceed 0.1 pound per hour.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P066 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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.

g. Emission Limitation:
Phenol emissions shall not exceed 0.1 pound per hour.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P066 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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 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.

h. Emission Limitation:
Volatile organic compound emissions shall not exceed 0.6 pound 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 (126) 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 44.44 tons per rolling, 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.g.

j. Emission Limitation:
Phenol emissions from P031, P066 and P128 shall not exceed 49.5 tons per rolling, 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.h.

k. 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 A.III.1.l.

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).

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

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

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

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P066: F-5 Curing Oven with incinerator	OAC rule 3745-31-05(D)	Ammonia emissions shall not exceed 1.1 pounds per hour and 4.8 tons per year.

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

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

1. Emission Limitation:
Ammonia emissions shall not exceed 1.1 pounds per hour and 4.8 tons per year.

Applicable Compliance Method:

Emissions Unit ID: P066

The permittee shall conduct, or have conducted, emission testing for P066 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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): 40CFRPart63, Appendix A, Method 301 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.

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

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.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	OAC rule 3745-17-11(B)(1)
P073: C-4 Cooling Section with venturi scrubber	OAC rule 3745-31-05(A)(3)	
		OAC rule 3745-31-05(D)
	OAC rule 3745-17-07(A)(1)	

Applicable Emissions Limitations/Control Measures	
Filterable and condensable particulate emissions shall not exceed 3.85 pounds per hour and 16.9 tons per year.	stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). Methanol emissions from P027, P055 and P073 shall not exceed 19.4 tons per rolling 12-month summation.
Formaldehyde emissions shall not exceed 0.7 pound per hour and 3.1 tons per year.	Phenol emissions from P027, P055 and P073 shall not exceed 21.4 tons per rolling 12-month summation.
Phenol emissions shall not exceed 0.30 pound per hour.	Volatile organic compound emissions from P027, P055 and P073 shall not exceed 62.6 tons per rolling 12-month summation.
Methanol emissions shall not exceed 0.25 pound per hour.	See A.II.3 below.
Volatile organic compound emissions shall not exceed 1.25 pounds per hour.	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and 17-07(A)(1).	
See A.I.2.a and A.II.1- 2 below.	
Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average.	
The emission limitation specified by this rule is less	

2. Additional Terms and Conditions

2.a Particulate emissions shall be vented to a control system which includes a smoke stripper system (scrubber and HPAF) and a cooling scrubber.

II. Operational Restrictions

1. The pressure drop across the venturi throat portion of the scrubber shall be maintained within the range of 2 - 12 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. Formaldehyde delivered to the facility shall not exceed a free methanol content of 1%.

3. 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.

III. Monitoring and/or Recordkeeping Requirements

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

   a. ton(s) of resin delivered to P027;

b. methanol concentration (%) in resin (an average of the methanol content in the formaldehyde taken from the delivery certificates received during the year);

c. phenol concentration (%) (an average of the phenol concentration determined from minimum weekly internal testing of resin);

d. total methanol delivered to P027, calculated as follows: a*b;

e. total phenol delivered to P027, calculated as follows: a*c;

f. total methanol and phenol delivered to P027 and P031 combined (tons), calculated as follows: d + e + M_{P031} + P_{P031} where M equals methanol and P equals phenol;

g. methanol emitted from C-4 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 C-4 manufacturing line, calculated as follows: e * [0.87 (percent of delivered phenol estimated to be emitted over the entire C-4 manufacturing line);

i. total hours of operations for P073;

j. formaldehyde emissions from P073 (F_{P073}), calculated as follows: 0.7 lb/hr (hourly maximum) * i;

k. total VOC emissions from C-4 manufacturing line (P027, P055 and P073) shall be calculated as follows: NG_{P027} + F_{P027} + NG_{P055} + F_{P055} + F_{P073} + g and h where NG equals natural gas and F equals formaldehyde;

l. 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

m. 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. The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate 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 shift basis.

c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. 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 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.

4. 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.

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 methods:

   a. Emission Limitation:
   Filterable and condensable particulate emissions shall not exceed 3.85 pounds per hour and 16.9 tons per year.

   Applicable Compliance Method:
   The permittee shall conduct, or have conducted, emission testing for P073 in accordance with the following requirements:

      i. The emission testing shall be conducted within 3 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 0.7 pound per hour and 3.1 tons per year.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P073 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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 0.25 pound per hour.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P073 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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 0.37 pound per hour.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P073 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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 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.

e. Emission Limitation:
Volatile organic compound emissions shall not exceed 1.25 pounds per hour.

Applicable Compliance Method:
The hourly voc emission limit is a summation of maximum formaldehyde, methanol and phenol emissions. Compliance with the hourly limitation will be demonstrated by summing the hourly stack test results derived for formaldehyde, methanol and phenol.

i. Emission Limitation:
Methanol emissions from P027, P055 and P073 shall not exceed 19.4 tons per rolling, 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.g.

j. Emission Limitation:
Phenol emissions from P027, P055 and P073 shall not exceed 21.4 tons per rolling, 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.h.

k. Emission Limitation:
Volatile organic compound emissions from P027, P055 and P073 shall not exceed 62.6 tons per rolling, 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.k.

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).

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

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

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

Central District Office.

VI. Miscellaneous Requirements

None.

Emissions Unit ID: P073

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P073: C-4 Cooling Section	OAC rule 3745-31-05(D)	Ammonia emissions shall not exceed 3.5 pounds per hour and 15.3 tons per year.

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

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

1. Emission Limitation:
Ammonia emissions shall not exceed 3.5 pounds per hour and 15.3 tons per year.

Applicable Compliance Method:
The permittee shall conduct, or have conducted, emission testing for P073 in accordance with the following requirements:

i. The emission testing shall be conducted within 3 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): 40CFRPart63, Appendix A, Method 301 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.

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

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.

VI. Miscellaneous Requirements

None.

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P088: C-4 Asphalt Backing Application and Flexographic Printing	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 0.29 pound per hour and 1.3 tons per year. Volatile organic compound emissions shall not exceed 1.02 pounds per hour and 4.5 tons per year. The requirements of this rule also include compliance with the requirements of OAC rule 17-07(A)(1). See A.II.1- 2 below.
	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.
	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(2)	Exempt, (See A.II.1).

2. Additional Terms and Conditions

Emissions Unit ID: P088

2.a The hourly and annual limitation(s) for this emissions unit were established to reflect the potential to emit. Therefore, it is not necessary to develop recordkeeping and/or reporting requirements to ensure compliance with this limit.

II. Operational Restrictions

1. 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).

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

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 methods:

   a. Emission Limitation:
   Particulate emissions shall not exceed 0.29 pound per hour and 1.3 tons per year.

   Applicable Compliance Method:
   If required, the permittee shall demonstrate compliance with the hourly emission rate in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 5.

   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:
   Volatile organic compound emissions shall not exceed 1.02 pounds per hour and 4.5 tons per year.

   Applicable Compliance Method:
   If required, the permittee shall demonstrate compliance with the hourly emission rate through stack testing a similar emissions unit at the facility in accordance with 40 CFR

Part 60, Appendix A, Method 25A or an approved alternative, test method.

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:
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).

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P088: C-4 Asphalt Backing Application and Flexographic Printing		

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

Emissions Unit ID: P128

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	OAC rule 3745-31-05(D)
P128: F-5 Cooling Section	OAC rule 3745-31-05(A)(3)	
	OAC rule 3745-17-07(A)(1)	
	OAC rule 3745-17-11(B)(1)	

Applicable Emissions Limitations/Control Measures	
Filterable and condensable particulate emissions shall not exceed 5.6 pounds per hour and 24.5 tons per year.	Methanol emissions from P031, P066 and P128 shall not exceed 44.4 tons per rolling 12-month summation.
Volatile organic compound emissions shall not exceed 2.92 pounds per hour.	Phenol emissions from P031, P066 and P128 shall not exceed 49.5 tons per rolling 12-month summation.
Formaldehyde emissions shall not exceed 2.0 pound per hour and 8.8 tons per year.	Volatile organic compound emissions from P031, P066 and P128 shall not exceed 143.2 tons per rolling 12-month summation.
Phenol emissions shall not exceed 0.5 pound per hour.	See A.II.4 below.
Methanol emissions shall not exceed 0.4 pound per hour.	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and 17-07(A)(1).	
See A.I.2.a and A.II.1 - 3 below.	
Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average.	
The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).	

2. Additional Terms and Conditions

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

II. 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. Formaldehyde 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.

III. 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 formaldehyde taken from the delivery certificates received during the year);

   c. phenol concentration (%) (an average of the phenol concentration determined from minimum weekly internal testing of resin);

   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 P128;

   j. formaldehyde emissions from P128 (F_{P128}), calculated as follows: 0.7 lb/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 and the scrubber water flow rate 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 shift basis.

c. the operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. 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.

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 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 3 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 3 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 3 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 3 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 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.

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 44.44 tons per rolling 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.1.g.

g. Emission Limitation:
Phenol emissions from P031, P066 and P128 shall not exceed 49.5 tons per rolling 12-month summation.

Applicable Compliance Method:
For compliance with the annual limitation, see A.III.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 A.III.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).

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.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P128: F-5 Cooling Section	OAC rule 3745-31-05(D)	Ammonia emissions shall not exceed 1.6 pounds per hour and 7.0 tons per year.

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

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

1. Emission Limitation:
Ammonia emissions shall not exceed 1.6 pounds per hour and 7.0 tons per year.

Applicable Compliance Method:

Emissions Unit ID: P128

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 3 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): 40CFRPart63, Appendix A, Method 301 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.

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

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.

VI. Miscellaneous Requirements

None.

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P173: 7.35 tph F-6 batch charging operation with baghouse	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 0.03 pound per hour and 0.13 ton per year. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). See A.I.2.b and A.II.1 below.
	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.
	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a The short term limitations of 0.03 pound particulate emission per hour and 0.13 ton particulate emissions per year were established for PTI purposes to reflect the potential to emit for this emissions unit as vented to a baghouse. Therefore, the parametric monitoring of the baghouse as established in the following terms and conditions will ensure

compliance with these limits.

2.b The permittee shall control particulate emissions through the use of a baghouse.

Emissions Unit ID: P173

II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 12 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.

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 weekly basis.

IV. Reporting Requirements

1. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

   Reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Term and Condition A.1.

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 methods:

   a. Emission Limitation:
   Particulate emissions shall not exceed 0.03 pound per hour and 0.13 ton per year.

   Applicable Compliance Method:
   Compliance with the hourly emission rate will be demonstrated by multiplying the maximum, hourly throughput of the batch charging operation (7.35 tph) by the AP-42 emission factor for storage bins* (0.2 lb/ton) from Table 11.13.-2 "Emission Factors for Glass Fiber Manufacturing", 1/95, and then multiplying by [1 - control efficiency of baghouse (0.98)].

   *this emission factor was used because it best quantifies the emissions expected from the partially, enclosed transfer of raw materials from mixing and weighing to batch bunker, bunker to bin, and bin to furnace auger.

   To demonstrate compliance with the annual limitation, multiplying the maximum, annual throughput of the batch charging operation (64,386 tpy) by the AP-42 emission factor for storage bins* (0.2 lb/ton) from Table 11.13.-2 "Emission Factors for Glass Fiber

Manufacturing", and then multiplying by [1 - control efficiency of baghouse (0.98)] and divide by 2000 to convert to ton(s) per year

If required, the permittee shall demonstrate compliance with the hourly emission rate in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 5.

b. Emission Limitation:
Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with 40CFR60, Method 9 and the procedures in OAC rule 3745-17-03(A)(1).

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P173: 7.35 tph F-6 batch charging operation with baghouse		

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P182: F-5 Asphalt Backing Application	OAC rule 3745-31-05(A)(3)	Volatile organic compound emissions shall not exceed 0.31 pound per hour and 1.4 tons per year.

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

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

Emissions Unit ID: P182

Emission Limitation:
Volatile organic compound emissions shall not exceed 0.31 pound per hour and 1.4 tons per year.

Applicable Compliance Method:
If required, the permittee shall demonstrate compliance with the hourly emission rate through stack testing a similar emissions unit at the facility in accordance with 40 CFR Part 60, Appendix A, Method 25A or an approved alternative, test method.

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.

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P182: F-5 Asphalt Backing Application		

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P184: C-4 Edge Trim System with penclone	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 0.04 pound per hour and 0.2 ton per year. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). See A.I.2.a and A.II.1 below.
	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.

2. Additional Terms and Conditions

2.a The penclone, used exclusively by the Owens Corning company, is a rectangular fabric filter structure which vents from four sides.

II. Operational Restrictions

1. The permittee must vent the particulate emissions to a penclone when the emissions unit is in operation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform weekly checks for visible emissions from the penclone. The presence or absence of any visible emissions from any side of the penclone shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. whether the emissions are representative of normal operation;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the penclone serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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 methods:

   a. Emission Limitation:
   Particulate emissions shall not exceed 0.04 pound per hour and 0.2 ton per year.

   Applicable Compliance Method:
   To demonstrate compliance with the hourly emission rate, the following equation will be used:

   E = A*(0.00096 gr/dscf)*(60 min/hr)*(lb/7000 gr)*(0.3)

   where A = airflow through the penclone
   0.3 = 1- RACM control efficiency for building acting as inhibitor to particulate reaching atmosphere

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

   b. Emission Limitation:
   Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average.

   Applicable Compliance Method:

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

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P184: C-4 edge trim system with penclone		

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P197: C-4 belt rollup system with penclone	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 0.07 pound per hour and 0.32 ton per year. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). See A.I.2.a and A.II.1 below.
	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.

2. Additional Terms and Conditions

2.a The penclone, used exclusively by the Owens Corning company, is a rectangular fabric filter structure which vents from four sides.

II. Operational Restrictions

1. The permittee must vent the particulate emissions to a penclone when the emissions unit is in operation.

III. Monitoring and/or Recordkeeping Requirements

Emissions Unit ID: P197

1. The permittee shall perform weekly checks for visible emissions from the penclone serving this emissions unit. The presence or absence of any visible emissions from any side of the penclone shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. whether the emissions are representative of normal operation;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the penclone serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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 methods:

   a. Emission Limitation:
   Particulate emissions shall not exceed 0.07 pound per hour and 0.32 ton per year.

   Applicable Compliance Method:
   To demonstrate compliance with the hourly emission rate, the following equation will be used:

   E = A*(0.00096 gr/dscf)*(60 min/hr)*(lb/7000 gr)*(0.3)

   where A = airflow through the penclone
   0.3 = 1- RACM control efficiency for building acting as inhibitor to particulate reaching atmosphere

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

2. Emission Limitation:
   Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average.

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

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P197 - C-4 belt rollup system with penclone		

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P198: F-5 edge trim system with penclone	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 0.12 pound per hour and 0.54 ton per year. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). See A.I.2.a and A.II.1 below.
	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.

2. Additional Terms and Conditions

2.a The penclone, used exclusively by the Owens Corning company, is a rectangular fabric filter structure which vents from four sides.

II. Operational Restrictions

1. The permittee must vent the particulate emissions to either the penclone or the bypass penclone when the emissions unit is in operation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform daily checks for visible emissions from the penclone and the area of roof surrounding the penclone serving this emissions unit. The presence or absence of any visible emissions from any side of the penclone and/or roof shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. whether the emissions are representative of normal operation;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the penclone serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

V. Testing Requirements

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

1. Emission Limitation:
   Particulate emissions shall not exceed 0.12 pound per hour and 0.54 ton per year.

   Applicable Compliance Method:
   The permittee shall conduct, or have conducted, emission testing for P198 in accordance with the following requirements:

   1. The emission testing shall be conducted within 6 months after issuance of the permit.

   2. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for particulate.

   3. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): 40CFRPart60, Appendix A, Methods 1-4, 5 and 202. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

   4. 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.

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.

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.

2. Emission Limitation:
Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with 40CFR60, Method 9 and the procedures in OAC rule 3745-17-03(A)(1).

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P198: F-5 Edge Trim System with penclone		

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P199: F-5 belt rollup system with penclone	OAC rule 3745-31-05(A)(3)	Particulate emissions shall not exceed 0.06 pound per hour and 0.3 ton per year. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). See A.I.2.a and A.II.1 below.
	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.

2. Additional Terms and Conditions

2.a The penclone, used exclusively by the Owens Corning company, is a rectangular fabric filter structure which vents from four sides.

II. Operational Restrictions

1. The permittee must vent the particulate emissions to a penclone when the emissions unit is in operation.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform weekly checks for visible emissions from the penclone serving this emissions unit. The presence or absence of any visible emissions from any side of the penclone shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

   a. the color of the emissions;
   b. whether the emissions are representative of normal operation;
   c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
   d. the total duration of any visible emission incident; and
   e. any corrective actions taken to eliminate the visible emissions.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the penclone serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Central District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

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 methods:

   a. Emission Limitation:
   Particulate emissions shall not exceed 0.06 pound per hour and 0.3 ton per year.

   Applicable Compliance Method:
   To demonstrate compliance with the hourly emission rate, the following equation will be used:

   E = A*(0.00096 gr/dscf)*(60 min/hr)*(lb/7000 gr)*(0.3)

   where A = airflow through the penclone
   0.3 = 1- RACM control efficiency for building acting as inhibitor to particulate reaching atmosphere

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

Emissions Unit ID: P199

2. Emission Limitation:
Visible particulate emissions from any stack shall not exceed twenty per cent opacity, as a six-minute average.

Applicable Compliance Method:
Compliance shall be determined through visible emissions observations performed in accordance with 40CFR60, Method 9 and the procedures in OAC rule 3745-17-03(A)(1).

VI. Miscellaneous Requirements

None.

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P199: F-5 belt rollup system with penclone		

2. Additional Terms and Conditions

2.a None.

II. Operational Restrictions

None.

III. Monitoring and/or Recordkeeping Requirements

None.

IV. Reporting Requirements

None.

V. Testing Requirements

None.

VI. Miscellaneous Requirements

None.

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

SIC CODE 3296 SCC CODE 30501202 EMISSIONS UNIT ID P001

EMISSIONS UNIT DESCRIPTION F-6 Glass Melting Furnace

DATE INSTALLED mod.;upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	3.125	13.69	3.125	13.69
PM_{10}	attainment	3.125	13.69	3.125	13.69
Sulfur Dioxide	attainment	2.2	9.5	2.2	9.5
Organic Compounds					
Nitrogen Oxides	attainment	49.74	217.1	49.74	217.1
Carbon Monoxide	attainment	1.68	7.4	1.68	7.4
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? subpart NNN PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
baghouse;31-05(A)(3);17-07(A)(1);31-05(D);burn natural gas only

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ ---------

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: n/a

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501299 EMISSIONS UNIT ID P021

EMISSIONS UNIT DESCRIPTION F-5 Glass Forehearth

DATE INSTALLED mod.;upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	1.43	6.4	1.43	6.4
PM_{10}	attainment	1.43	6.4	1.43	6.4
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides	attainment	0.71	3.1	0.71	3.1
Carbon Monoxide	attainment	0.6	2.6	0.6	2.6
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
31-05(A)(3);17-07(A)(1);21-08(B); burn natural gas only

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $none

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: n/a

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501299 EMISSIONS UNIT ID P022

EMISSIONS UNIT DESCRIPTION F-6 Glass Channel

DATE INSTALLED mod.;upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	5.5	24	5.5	24
PM_{10}	attainment	5.5	24	5.5	24
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides	attainment	0.6	2.5	0.6	2.5
Carbon Monoxide	attainment	0.5	2.1	0.5	2.1
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
31-05(A)(3);17-07(A)(1);21-08(B); burn natural gas only

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $none

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? YES X NO

IDENTIFY THE AIR CONTAMINANTS: n/a

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501204 EMISSIONS UNIT ID P027

EMISSIONS UNIT DESCRIPTION C-4 Fiber and Pack Forming

DATE INSTALLED mod.;upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	28	122.6	28	122.6
PM_{10}	attainment	28	122.6	28	122.6
Sulfur Dioxide	attainment	10	43.8	10	43.8
Organic Compounds	attainment	32.11	57.9	32.11	57.9
Nitrogen Oxides	attainment	4	17.5	4	17.5
Carbon Monoxide	attainment	14	61.3	14	61.3
Lead					
Other: Air Toxics	ammonia	26	113.9	26	113.9

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? subpart NNN PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
31-05(A)(3);17-07(A)(1);21-08(B); burn natural gas only; dust control system;31-05(D)

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ ---------

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: ammonia, methanol

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501204 EMISSIONS UNIT ID P031

EMISSIONS UNIT DESCRIPTION F-5 Fiber and Pack Forming

DATE INSTALLED mod.;upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	29.5	129.2	29.5	129.2
PM_{10}	attainment	29.5	129.2	29.5	129.2
Sulfur Dioxide	attainment	5.3	23	5.3	23
Organic Compounds	attainment	53.6	130.6	53.6	130.6
Nitrogen Oxides	attainment	5.3	23	5.3	23
Carbon Monoxide	attainment	17.5	76.7	17.5	76.7
Lead					
Other: Air Toxics	ammonia	42	184	42	184

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? subpart NNN PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
31-05(A)(3);17-07(A)(1);21-08(B); burn natural gas only; dust control system;31-05(D)

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ ---------

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: ammonia, methanol

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501205 EMISSIONS UNIT ID P055

EMISSIONS UNIT DESCRIPTION C-4 Curing Oven

DATE INSTALLED mod.;upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	3	13.1	3	13.1
PM_{10}	attainment	3	13.1	3	13.1
Sulfur Dioxide	attainment	0.65	2.9	0.65	2.9
Organic Compounds	attainment	0.38	0.9	0.38	0.9
Nitrogen Oxides	attainment	14	61.3	14	61.3
Carbon Monoxide	attainment	21	92	21	92
Lead					
Other: Air Toxics	ammonia	2	8.8	2	8.8

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? subpart NNN PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
31-05(A)(3); 21-07(G)(1);17-07(A)(1);incinerator; only burn natural gas;31-05(D)

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ ---------

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? YES X NO

IDENTIFY THE AIR CONTAMINANTS: methanol; ammonia

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501205 EMISSIONS UNIT ID P066

EMISSIONS UNIT DESCRIPTION F-5 Curing Oven

DATE INSTALLED mod.;upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	4	17.5	4	17.5
PM_{10}	attainment	4	17.5	4	17.5
Sulfur Dioxide	attainment	0.65	2.9	0.65	2.9
Organic Compounds	attainment	0.6	2.1	0.6	2.1
Nitrogen Oxides	attainment	14	61.3	14	61.3
Carbon Monoxide	attainment	21	92	21	92
Lead					
Other: Air Toxics	ammonia	1.1	4.8	1.1	4.8

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? subpart NNN PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
31-05(A)(3); 21-07(G)(1);17-07(A)(1);incinerator; only burn natural gas;31-05(D)

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ ---------

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? YES X NO

IDENTIFY THE AIR CONTAMINANTS: methanol, ammonia

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501206 EMISSIONS UNIT ID P073

EMISSIONS UNIT DESCRIPTION C-4 Cooling Section

DATE INSTALLED mod.;upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	3.85	16.9	3.85	16.9
PM_{10}	attainment	3.85	16.9	3.85	16.9
Sulfur Dioxide					
Organic Compounds	attainment	1.25	3.8	1.25	3.8
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics	ammonia	3.5	15.3	3.5	15.3

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? subpart NNN PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
dust control system;17-07(A)(1);31-05(A)(3); burn natural gas only;31-05(D)

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ ---------

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: ammonia, methanol

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501299 EMISSIONS UNIT ID P088

EMISSIONS UNIT DESCRIPTION C-4 Asphalt Backing Application and Flexographic Printing

DATE INSTALLED mod.;upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.29	1.3	0.29	1.3
PM_{10}	attainment	0.29	1.3	0.29	1.3
Sulfur Dioxide					
Organic Compounds	attainment	1.02	4.5	1.02	4.5
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
17-07(A)(1);31-05(A)(3)

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $n/a

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? YES X NO

IDENTIFY THE AIR CONTAMINANTS: n/a

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501206 EMISSIONS UNIT ID P128

EMISSIONS UNIT DESCRIPTION F-5 Cooling Section

DATE INSTALLED mod.; upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	5.6	24.5	5.6	24.5
PM_{10}	attainment	5.6	24.5	5.6	24.5
Sulfur Dioxide					
Organic Compounds	attainment	2.92	3.8	2.92	3.8
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics	ammonia	1.6	7	1.6	7

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? Subpart NNN PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
dust control system;17-07(A)(1);31-05(A)(3); burn natural gas only;31-05(D)

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $ ---------

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: ammonia, methanol

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501221 EMISSIONS UNIT ID P173

EMISSIONS UNIT DESCRIPTION F-6 Batch Charging Operation

DATE INSTALLED mod.;upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.03	0.13	0.03	0.13
PM_{10}	attainment	0.03	0.13	0.03	0.13
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
baghouse;17-07;31-05

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $unknown

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: n/a

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501299 EMISSIONS UNIT ID P182

EMISSIONS UNIT DESCRIPTION F-5 Asphalt Backing Application

DATE INSTALLED mod.; upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM_{10}					
Sulfur Dioxide					
Organic Compounds	attainment	0.31	1.4	0.31	1.4
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
31-05(A)(3); compliance with applicable rules and regulations

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $unknown

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: n/a

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Emissions Unit ID: P199

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

SIC CODE 3296 SCC CODE 30501299 EMISSIONS UNIT ID P184

EMISSIONS UNIT DESCRIPTION C-4 Edge Trim System with Penclone

DATE INSTALLED mod.;upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.04	0.2	0.04	0.2
PM_{10}	attainment	0.04	0.2	0.04	0.2
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
penclone; 31-05(A)(3);17-07(A)(1)

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $unknown

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: n/a

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501299 EMISSIONS UNIT ID P197

EMISSIONS UNIT DESCRIPTION C-4 belt rollup system with penclone

DATE INSTALLED mod.;upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.07	0.32	0.07	0.32
PM_{10}	attainment	0.07	0.32	0.07	0.32
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
penclone; 31-05(A)(3);17-07(A)(1)

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $unknown

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: n/a

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501299 EMISSIONS UNIT ID P198

EMISSIONS UNIT DESCRIPTION F-5 Edge Trim System with Penclone

DATE INSTALLED mod.; upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.12	0.54	0.12	0.54
PM_{10}	attainment	0.12	0.54	0.12	0.54
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
penclone; 31-05(A)(3);17-07(A)(1)

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $unknown

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: n/a

NEW SOURCE REVIEW FORM B

PTI Number: 01-08329 Facility ID: 0145020185

FACILITY NAME Owens Corning Manufacturing Facility

FACILITY DESCRIPTION Reinvention project CITY/TWP Newark

Emissions Unit ID: P199

SIC CODE 3296 SCC CODE 30501299 EMISSIONS UNIT ID P199

EMISSIONS UNIT DESCRIPTION F-5 belt rollup system with penclone

DATE INSTALLED mod.; upon PTI issuance

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.06	0.3	0.06	0.3
PM_{10}	attainment	0.06	0.3	0.06	0.3
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?
penclone; 31-05(A)(3);17-07(A)(1)

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? $unknown

TOXIC AIR CONTAMINANTS

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

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: n/a