

Synthetic Minor Determination and/or Netting Determination
Permit To Install 03-17015

A. Source Description

Johns Manville owns and operates a multi-plant fiberglass insulation and building products manufacturing facility in Defiance Ohio. The facility consist of three operating plants which are designated as Plant 02, Plant 03 and Plant 08. All three of these plants are considered to be one facility for environmental air permitting. The permittee is proposing a consolidation project which will permanently shutdown operations at Plant 02 or move them to Plant 08. The consolidation project also involves the installation of new emission units along with the modification of existing emission units.

B. Facility Emissions and Attainment Status

The facility is a major stationary source with particulate emissions in excess of 100 tons per year (facility is classified as a glass fiber processing plant under USEPA new source review list of 28 source categories). Defiance County is classified as attainment for all pollutants.

C. Source Emissions

This project consists of the following changes: installation of two (2) new refurbished forming and collection units (Lines 85 and 87 at Plant #08); modification of three (3) forming & collection units (Lines 82, 84, & 86 at Plant 08) & five (5) curing operation (Lines 86 & 82 at Plant 08 and Lines 24, 25, & 26, which will be relocated to Plant 08 from Plant 02 and renamed to be Line 85, 84, & 87 curing operations, respectively); and removal of six (6) emissions unit (Lines 23, 24, 25, 26, 27 forming & collection and Line 23 curing operation at Plant 02).

<u>Emissions Unit</u>		<u>PM₁₀</u>	<u>SO₂</u>	<u>NO_x</u>	<u>VOC</u>	<u>CO</u>	
Plant 8 P091	Line #85 F&C	45.20	0.88	5.39	14.02	137.40	
Plant 8 P092	Line #87 F&C	32.46	0.53	1.36	32.89	33.20	
Plant 8 *P093	Line #87 curing		5.08	0.22	9.03	7.10	10.78
Plant 8 *P094	Line #84 curing		0.81	0.01	0.34	0.28	0.40
Plant 8 *P095	Line #85 curing		1.96	0.09	6.63	2.62	3.95
Plant 8 *P012	Line #82 F&C	18.83	0.25	4.44	15.86	21.32	
Plant 8 *P013	Line #84 F&C	17.81	0.43	4.26	-13.72	109.38	
Plant 8 *P015	Line #86 F&C	15.97	0.15	2.70	9.69	16.59	
Plant 8 *P029	Line #86 curing		1.85	0.12	0.99	4.26	5.62
<u>Plant 8 *P044</u>	<u>Line #82 curing</u>		<u>3.02</u>	<u>0.22</u>	<u>7.72</u>	<u>6.94</u>	<u>7.23</u>
		142.99	2.89	42.84	79.94	345.88	

[*net change as a result of the emissions unit being modified; old actual based on average for the two years of 1999&2000]

The potential emissions from the proposed installation for PM₁₀, VOC and CO are greater than the PSD significance level thresholds. The company plans to shutdown six (6) emissions units in connection with the modifications and installation of the emissions units listed above. The decreases, from the shutdown of the six (6) emissions unit, will occur on a rolling schedule as new emissions are installed, therefore the contemporaneous increases and decreases (based on actual operating data for the years 1999 & 2000 for the six (6) emissions units). The company has contemporaneous netting credits to avoid PSD regulations for PE, VOC and CO.

Listed in the following table below are the sources that Johns Manville has installed or has planned to install over the contemporaneous period and/or modifications for emissions increases:

INCREASES
const/
startup

<u>date</u>	<u>PTI</u>	<u>SOURCE</u>	<u>PM₁₀</u>	<u>CO</u>	<u>VOC</u>
07/01	03-13579	Plant 2 P009 forming & collection unit #24	0	0	4.05
09/03	03-13943	Plant 2 P008 forming and collection unit #23	0	0	12.95
10/03	03-13943	Plant 2 P009 forming and collection unit #24	17.53	0	18.44
09/04	03-16145	Plant 8 P013 forming and collection unit #24	13.13	15.11	4.05
04/05	03-16294	Plant 8 P060 batch receiving	0.18	0	0
04/05	03-16294	Plant 8 P061 electric melter#1	1.49	3.9	0.79
04/05	03-16294	Plant 8 P062 electric melter#2	1.49	3.9	0.79
04/05	03-16294	Plant 8 P063 electric melter#3	1.49	3.9	0.79
04/05	03-16294	Plant 8 P064 pipe collection 801	11.78	8.85	3.64
04/05	03-16294	Plant 8 P065 sear roll and curing oven 801	2.45	5.43	2.23
04/05	03-16294	Plant 8 P066 product finishing unit 801	1.14	0.00	0.00
04/05	03-16294	Plant 8 P067 pipe collection 802	11.78	8.85	3.64
04/05	03-16294	Plant 8 P068 sear roll and curing oven 802	2.45	5.43	2.23
04/05	03-16294	Plant 8 P069 product finishing unit 802	1.14	0.00	0.00
04/05	03-16294	Plant 8 P070 pipe collection 803	11.78	8.85	3.64
04/05	03-16294	Plant 8 P071 sear roll and curing oven 803	2.45	5.43	2.23
04/05	03-16294	Plant 8 P072 product finishing unit 803	1.14	0.00	0.00
04/05	03-16294	Plant 8 P073 pipe collection 804	11.78	8.85	3.64
04/05	03-16294	Plant 8 P074 sear roll and curing oven 804	2.45	5.43	2.23
04/05	03-16294	Plant 8 P075 product finishing unit 804	1.14	0.00	0.00
04/05	03-16294	Plant 8 P076 pipe collection 805	17.65	8.85	5.48
04/05	03-16294	Plant 8 P077 sear roll and curing oven 805	3.64	8.15	3.33
04/05	03-16294	Plant 8 P078 product finishing unit 805	1.71	0.00	0.00
04/05	03-16294	Plant 8 P079 pipe collection 806	17.65	8.85	5.48
04/05	03-16294	Plant 8 P080 sear roll and curing oven 806	3.64	8.15	3.33
04/05	03-16294	Plant 8 P081 product finishing unit 806	1.71	0.00	0.00
04/05	03-16294	Plant 8 P082 pipe collection 807	26.50	8.85	8.19
04/05	03-16294	Plant 8 P083 sear roll and curing oven 807	5.48	12.22	4.99
04/05	03-16294	Plant 8 P084 product finishing unit 807	2.58	0.00	0.00
04/05	03-16294	Plant 8 P085 offline sear roll and curing oven		0.61	1.36
04/05	03-16294	Plant 8 P086 offline product finishing unit	0.31	0.00	0.00
04/05	03-16294	Plant 8 P087 reclaim refeed system	1.88	0.00	0.00
04/05	03-16294	Plant 8 P088 GDC Oven1	1.62	3.46	1.58
04/05	03-16294	Plant 8 P089 GDC Oven 2	1.62	3.46	1.58
04/05	03-16294	Plant 8 P090 GDC Product finishing	1.23	0.00	0.00
04/05	03-16294	Plant 8 Emergency Generator (750 kW-diesel)	0.20	0.61	0.23
04/05	03-16294	Plant 8 housekeeping system	0.92	0.00	0.00
04/05	03-16294	Plant 8 process area heaters (3 @ 5 mmbtu ea.)	0.48	2.78	0.35
04/05	03-16294	Plant 8 warehouse heaters (5@ 1 mm btu ea.)	<u>0.18</u>	<u>0.93</u>	<u>0.13</u>
INCREASES			<u>186.4</u>	<u>151.6</u>	<u>100.58</u>
Total Increases			329.33	497.5	180.47

0.57

Listed in the following table below are the sources that Johns Manville has removed over the contemporaneous period and/or modifications that decreased emissions:

DECREASES

<u>SHUTDOWN</u>	<u>SOURCE</u>	<u>PM₁₀</u>	<u>CO</u>	<u>VOC</u>
07/01	Plant 2 P008 fiberglass forming and collection unit 23	2.78	0.0	0.0
05/03	Plant 3 P011 line 31 collection	15.9	7.5	6.8
05/03	Plant 3 P012 line 32 collection	23.9	12.5	7.4
05/03	Plant 3 P013 line 33 collection	14.2	8.8	5.2
05/03	Plant 3 P014 line 34 collection	16.6	15.8	9.4
05/03	Plant 3 P015 line 35 collection	23.2	15.5	9.5
05/03	Plant 3 P016 line 36 collection	31.3	25.0	15.5
05/03	Plant 3 P042 line 37 collection	15.8	8.5	4.5
05/03	Plant 3 P049 line 30 sear roll and curing oven	2.3	4.7	2.9
05/03	Plant 3 P017 line 31 sear roll	0.1	1.3	0.2
05/03	Plant 3 P018 line 32 sear roll	0.1	2.5	0.3
05/03	Plant 3 P019 line 33 sear roll	0.1	1.8	0.2
05/03	Plant 3 P020 line 34 sear roll	0.2	3.2	0.4
05/03	Plant 3 P021 line 35 sear roll	0.2	3.2	0.4
05/03	Plant 3 P022 line 36 sear roll	0.3	5.3	0.6
05/03	Plant 3 P043 line 37 sear roll and curing oven	2.0	4.9	2.1
05/03	Plant 3 P051 line 38 sear roll and curing oven	8.8	17.9	11.2

05/03	Plant 3	P023 line 31 curing oven	0.8	0.7	0.7
05/03	Plant 3	P024 line 32 curing oven	1.6	1.4	1.4
05/03	Plant 3	P025 line 33 curing oven	1.1	1.0	1.0
05/03	Plant 3	P026 line 34 curing oven	2.1	1.8	1.8
05/03	Plant 3	P027 line 35 curing oven	2.1	1.8	1.8
05/03	Plant 3	P028 line 36 curing oven	3.4	2.9	2.9
05/03	Plant 3	P003 handwrap 36 product curing	0.1	0.1	0.1
05/03	Plant 3	P040 hand wrap 38 product curing	0.1	0.1	0.1
05/03	Plant 3	P050 line 30 product finishing unit	0.1	0.0	0.0
05/03	Plant 3	P031 line 31 product finishing unit	0.5	0.0	0.0
05/03	Plant 3	P032 line 32 product finishing unit	0.9	0.0	0.0
05/03	Plant 3	P033 line 33 product finishing unit	0.6	0.0	0.0
05/03	Plant 3	P034 line 34 product finishing unit	1.1	0.0	0.0
05/03	Plant 3	P035 line 35 product finishing unit	1.1	0.0	0.0
05/03	Plant 3	P036 line 36 product finishing unit	1.8	0.0	0.0
05/03	Plant 3	P044 line 37 product finishing unit	1.2	0.0	0.0
05/03	Plant 3	P052 line 38 product finishing unit	0.4	0.0	0.0
05/03	Plant 3	P048 handwrap 36/38 product finishing unit	0.1	0.0	0.0
05/03	Plant 3	QC oven	1.0	0.0	0.0
05/03	Plant 3	paint room	2.4	0.0	0.0
05/03	Plant 3	compactor air makeup	0.2	1.8	0.1
05/03	Plant 3	roof air makeup	0.2	1.8	0.1
05/03	Plant 3	dock b -north wall make up	0.1	1.3	0.1
05/03	Plant 3	cold resin room roof air make up	0.1	0.9	0.1
05/03	Plant 3	hot end air make up	0.1	1.3	0.1
05/03	Plant 3	space heaters	0.1	1.1	0.1
05/03	Plant 3	prereact hot water heater	0.0	0.4	0.0
05/03	Plant 3	steam generators	0.0	0.4	0.0
05/03	Plant 3	marble unloading (fug)	0.1	0.0	0.0
05/03	Plant 3	bailer for edge trim (fug)	1.2	0.0	0.0
05/03	Plant 3	prereact tanks	0.1	0.0	0.0
05/03	Plant 3	binder mix tanks (14)	0.1	0.0	0.0
09/05	Plant 2	P011 Line #26 forming & collection	19.32	14.52	14.37
12/05	Plant 2	P012 Line #27 forming & collection	36.19	44.04	25.71
01/06	Plant 2	P010 Line #25 forming & collection	35.45	22.80	13.31
08/07	Plant 2	P009 Line #24 forming & collection	30.55	80.95	11.77
09/07	Plant 2	P008 Line #23 forming and collection	25.33	80.67	10.09
09/07	Plant 2	P016 Line #23 curing operation	<u>1.36</u>	<u>4.18</u>	<u>2.76</u>
TOTAL DECREASES			330.78	404.36	165.21

The net change in emissions, due to the installation of the planned new source(s) in this PTI, over the contemporaneous time period, will be a net decrease of 1.37 TPY of PM₁₀, a net increase of 93.14 tpy of CO and 15.26 tpy of VOC .

D. Conclusion

Since the net increase in potential emissions included on this PTI, and of this entire facility expansion, will be less than PSD significance levels for PM, CO and VOC, the source will net out of the PSD review requirements.



State of Ohio Environmental Protection Agency

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

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov.
Center

Application No: 03-17015

Fac ID: 0320010005

DATE: 11/15/2005

Johns Manville International Inc. Plt08
G R Bonin
925 Carpenter Road
Defiance, OH 43512

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

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$4000** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

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

CC: USEPA

NWDO

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DEFIANCE COUNTY

PUBLIC NOTICE

**ISSUANCE OF DRAFT PERMIT TO INSTALL 03-17015 FOR AN AIR CONTAMINANT SOURCE FOR
Johns Manville International Inc. Plt08**

On 11/15/2005 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Johns Manville International Inc. Plt08**, located at **925 Carpenter Road, Defiance, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 03-17015:

Moving of some operations from Plant No. 2 to Plant No. 8, installation of new equipment and modification to some existing equipment

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

Don Waltermeyer, Ohio EPA, Northwest District Office, 347 North Dunbridge Road, Bowling Green, OH 43402 [(419)352-8461]



**Permit To Install
Terms and Conditions**

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

DRAFT PERMIT TO INSTALL 03-17015

Application Number: 03-17015
Facility ID: 0320010005
Permit Fee: **To be entered upon final issuance**
Name of Facility: Johns Manville International Inc. Plt08
Person to Contact: G R Bonin
Address: 925 Carpenter Road
Defiance, OH 43512

Location of proposed air contaminant source(s) [emissions unit(s)]:
**925 Carpenter Road
Defiance, Ohio**

Description of proposed emissions unit(s):
Moving of some operations from Plant No. 2 to Plant No. 8, installation of new equipment and modification to some existing equipment

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

Johns Manville International Inc. Plt08
PTI Application: 03-17015
Issued: To be entered upon final issuance
Part I - GENERAL TERMS AND CONDITIONS

Facility ID: 0320010005

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

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reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 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 (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - iv. If this permit is for an emissions unit located at a Title V facility, then each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

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

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permittee shall comply with the requirement to register such a plan.

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

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permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

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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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

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 its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. 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

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

11. Best Available Technology

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

12. Air Pollution Nuisance

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

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13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

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

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

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

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of any transfer of this permit.

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4. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or 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.

5. Construction of New Sources(s)

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

6. Public Disclosure

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

7. Applicability

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

8. Construction Compliance Certification

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

9. Additional Reporting Requirements When There Are No Deviations of Federally 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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit-To-Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PM ₁₀	239.19
PE	155.49
SO ₂	4.91
NO _x	82.69
OC	178.88
CO	486.40
formaldehyde	41.70

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

1. The permittee shall shutdown the following Plant 2 emissions units according to the Defiance Consolidation Timeline schedule submitted in the application for this PTI :

P011 Line #26 forming & collection;

P012 Line #27 forming & collection;

P010 Line #25 forming & collection;

P009 Line #24 forming & collection (PTI #03-13943 issued May 22, 2003);

P008 Line #23 forming & collection (PTI #03-13943 issued May 22, 2003); and,

P016 Line #23 curing operation.

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

1. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the resulting net increase in maximum annual emissions for each toxic compound for the emissions units contained in this PTI (PTI#03-17015) is less than 1.0 ton. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to result in an increase above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

Johns

PTI A

Emissions Unit ID: P012

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Part

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P012 - line 82 forming and collection	OAC rule 3745-31-05(A)(3)
[Modification to PTI 03-8472 issued March 15, 1995 and administratively modified December 6, 2001]	40 CFR Part 63, Subpart NNN OAC rule 3745-21-07(G)(2) OAC rule 3745-17-11(B)
Modification associated with an increase in glass melting capacity.	OAC rule 3745-23-06(B) OAC rule 3745-21-08(B) OAC rule 3745-18-06(E)

OAC rule 3745-17-07(A)

Applicable Emissions <u>Limitations/Control</u> <u>Measures</u>	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).	See A.I.2.d
11.13 pounds (lbs) particulate matter of 10 microns or less (PM ₁₀)/hour (hr), 48.75 tons per year (tpy) PM ₁₀ (See A.I.2.a)	See A.I.2.c
14.73 lbs carbon monoxide (CO)/hr, 64.52 tpy CO	See A.I.2.b
9.38 lbs organic compounds (OC)/hr, 41.08 tpy OC (See A.I.2.f)	
2.62 lbs nitrogen oxide (NO _x)/hr, 11.48 tpy NO _x	
0.15 lb sulfur dioxide (SO ₂)/hr, 0.66 tpy SO ₂	
1.41 lbs formaldehyde/hr, 6.18 tpy formaldehyde	
Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.	
See A.I.2.e	
None (See A.II.1)	

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

- 2.a** All particulate matter emissions are PM₁₀.
- 2.b** 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.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e** 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit. (The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)
- 2.f** All OC are volatile organic compounds (VOC).

Johns

PTI A

Emissions Unit ID: P012

Issued: To be entered upon final issuance**II. Operational Restrictions**

1. The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

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The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

3. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the company identification for each liquid organic material employed in this emissions unit; and
 - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitations: 11.13 lbs PM₁₀/hr, 48.75 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

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- b. Emission Limitations: 14.73 lbs CO/hr, 64.52 tpy CO

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- c. Emission Limitations: 9.38 lbs OC/hr, 41.08 tons OC/yr

Applicable Compliance Method: The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- d. Emission Limitations: 2.62 lbs NO_x/hr, 11.48 tons NO_x/yr

Applicable Compliance Method: The hourly allowable NO_x emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 7 of 40 CFR Part 60, Appendix A.

Compliance with the annual limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- e. Emission Limitations: 0.15 lb SO₂/hr, 0.66 ton SO₂/yr

Applicable Compliance Method: The hourly allowable SO₂ emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 6 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- f. Emission Limitations: 1.41 lbs formaldehyde/hr, 6.18 tons formaldehyde/yr

Applicable Compliance Method: The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- g. Emission Limitation: Visible PE shall not exceed 20% opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

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Emissions Unit ID: P012

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B. State Only Enforceable Section**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P012 - line 82 forming and collection		
[Modification to PTI 03-8472 issued March 15, 1995 and administratively modified December 6, 2001]		
Modification associated with an increase in glass melting capacity.		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

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V. Testing Requirements

None

VI. Miscellaneous Requirements

None

**Johns
PTI A**

Emissions Unit ID: P013

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P013 - line 84 forming and collection	OAC rule 3745-31-05(A)(3)
[Modification to PTI 03-16145 issued June 29, 2004]	OAC rule 3745-17-07(A)
Modification associated with an increase in glass melting capacity.	40 CFR Part 63, Subpart NNN
	OAC rule 3745-21-07(G)(2)
	OAC rule 3745-17-11(B)
	OAC rule 3745-23-06(B)
	OAC rule 3745-21-08(B)
	OAC rule 3745-18-06(E)

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<u>Applicable Emissions Limitations/Control Measures</u>	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).	See A.I.2.e
6.77 pounds (lbs) particulate emissions (PE)/hour (hr), 29.66 tons per year (tpy) PE (See A.I.2.a)	None (See A.II.1)
10.32 lbs particulate matter of 10 microns or less (PM ₁₀), 45.20 tpy PM ₁₀	See A.I.2.b
31.37 lbs carbon monoxide (CO)/hr, 137.40 tpy CO	See A.I.2.d
3.20 lbs organic compounds (OC)/hr, 14.02 tpy OC (See A.I.2.f)	See A.I.2.c
1.23 lbs nitrogen oxide (NO _x)/hr, 5.39 tpy NO _x	See A.I.2.b
0.20 lb sulfur dioxide (SO ₂)/hr, 0.88 tpy SO ₂	
0.81 lb formaldehyde/hr, 3.55 tpy formaldehyde	
Visible PE from the stack(s) serving this emissions unit shall not	

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2.a All particulate matter emitted is PM10. Particulate emissions (as defined in OAC rule 3745-17-01) for this emissions unit is the portion of particulate matter measurable by the applicable test methods (Methods 1-5) in Appendix A of 40 CFR Part 60.

2.b 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.c The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.d The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.e 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit. (The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)

2.f All OC are volatile organic compounds (VOC).

II. Operational Restrictions

1. The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

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3. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the company identification for each liquid organic material employed in this emissions unit; and
 - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitations: 6.77 lbs PE/hr, 29.66 tpy PE

Applicable Compliance Method: The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation

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by 8760 and dividing by 2000).

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- b. Emission Limitations: 10.32 lbs PM₁₀/hr, 45.20 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- c. Emission Limitations: 31.37 lbs CO/hr, 137.40 tpy CO

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- d. Emission Limitations: 3.20 lbs OC/hr, 14.02 tons OC/yr

Applicable Compliance Method: The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation

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by 8760 and dividing by 2000).

- e. Emission Limitations: 1.23 lbs NOx/hr, 5.39 tons NOx/yr

Applicable Compliance Method: The hourly allowable NOx emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- f. Emission Limitations: 0.20 lb SO2/hr, 0.88 ton SO2/yr

Applicable Compliance Method: The hourly allowable SO2 emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly allowable SO2 emission limitation by testing in accordance with Methods 1-4, and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- g. Emission Limitations: 0.81 lb formaldehyde/hr, 3.55 tons formaldehyde/yr

Applicable Compliance Method: The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual

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emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- h. Emission Limitation: Visible PE shall not exceed 20% opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Johns

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Emissions Unit ID: P013

Issued: To be entered upon final issuance

B. State Only Enforceable Section**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P013 - line 84 forming and collection [Modification to PTI 03-16145 issued June 29, 2004] Modification associated with an increase in glass melting capacity.		

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

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None

Emissions Unit ID: P013

VI. Miscellaneous Requirements

None

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PTI A

Emissions Unit ID: P015

Issued: To be entered upon final issuance

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P015 - line 86 forming and collection	OAC rule 3745-31-05(A)(3) 40 CFR Part 63, Subpart NNN
Modification of existing emissions unit to allow for production rate increase.	OAC rule 3745-21-07(G)(2) OAC rule 3745-17-11(B) OAC rule 3745-23-06(B) OAC rule 3745-21-08(B) OAC rule 3745-18-06(E)
	OAC rule 3745-17-07(A)

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<u>Applicable Emissions Limitations/Control Measures</u>	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).	None (See A.II.1)
9.28 pounds (lbs) particulate matter of 10 microns or less (PM ₁₀)/hour (hr), 40.65 tons per year (tpy) PM ₁₀ (See A.I.2.a)	See A.I.2.b
9.64 lbs carbon monoxide (CO)/hr, 42.22 tpy CO	See A.I.2.d
5.63 lbs organic compounds (OC)/hr, 24.66 tpy OC (See A.I.2.f)	See A.I.2.c
1.57 lbs nitrogen oxide (NO _x)/hr, 6.88 tpy NO _x	See A.I.2.b
0.09 lb sulfur dioxide (SO ₂)/hr, 0.39 tpy SO ₂	
1.42 lbs formaldehyde/hr, 6.22 tpy formaldehyde	
Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.	

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2. Additional Terms and Conditions

- 2.a** All PE is assumed to be in the form of particulate matter less than 10 microns in size (PM10).
- 2.b** 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.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e** 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit. (The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)
- 2.f** All OC are volatile organic compounds (VOC).

II. Operational Restrictions

1. The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

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III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

3. The permittee shall maintain monthly records of the following information for this

emissions unit:

- a. the company identification for each liquid organic material employed in this emissions unit; and
- b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

V. Testing Requirements

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

- a. Emission Limitations: 9.28 lbs PM₁₀/hr, 40.65 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- b. Emission Limitations: 9.64 lbs CO/hr, 42.22 tpy CO

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as

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indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- c. Emission Limitations: 5.63 lbs OC/hr, 24.66 tons OC/yr

Applicable Compliance Method: The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- d. Emission Limitations: 1.57 lbs NO_x/hr, 6.88 tons NO_x/yr

Applicable Compliance Method: The hourly allowable NO_x emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

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- e. Emission Limitations: 0.09 lb SO₂/hr, 0.39 ton SO₂/yr

Applicable Compliance Method: The hourly allowable SO₂ emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- f. Emission Limitations: 1.42 lbs formaldehyde/hr, 6.22 tons formaldehyde/yr

Applicable Compliance Method: The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- g. Emission Limitation: Visible PE shall not exceed 20% opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

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Emissions Unit ID: P015

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P015 - line 86 forming and collection		
Modification of existing emissions unit to allow for production rate increase.		

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

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Emissions Unit ID: P015

None

**Johns
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Emissions Unit ID: P029

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P029 - line 86 curing operations (Modification to PTI #03-06479 issued January 20, 1994 and administratively modified on February 19, 2002) Modification to allow production rate increase.	OAC rule 3745-31-05(A)(3) 40 CFR Part 63, Subpart NNN OAC rule 3745-21-07(G)(1) OAC rule 3745-17-11(B) OAC rule 3745-23-06(B) OAC rule 3745-21-08(B) OAC rule 3745-18-06(E)
	OAC rule 3745-17-07(A)

Applicable Emissions <u>Limitations/Control</u> <u>Measures</u>	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).	See A.1.2.b See A.1.2.d See A.1.2.c See A.1.2.b
1.07 pounds (lbs) particulate matter of 10 microns or less (PM ₁₀)/hour (hr), 4.69 tons per year (tpy) PM ₁₀ (See A.1.2.a)	
3.27 lbs carbon monoxide (CO)/hr, 14.32 tpy CO	
2.47 lbs organic compounds (OC)/hr, 10.82 tpy OC (See A.1.2.g)	
0.57 lbs nitrogen oxide (NO _x)/hr, 2.50 tpy NO _x	
0.07 lb sulfur dioxide (SO ₂)/hr, 0.31 tpy SO ₂	
0.62 lbs formaldehyde/hr, 2.72 tpy formaldehyde	
Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.	
See A.1.2.e	
None (See A.1.2.f)	

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

- 2.a** All particulate matter emissions are PM₁₀.
- 2.b** 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.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e** 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit. (The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)
- 2.f** This emissions unit does not involve the processing of a liquid organic material.

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Emissions Unit ID: P029

Issued: To be entered upon final issuance**2.g** All OC are volatile organic compounds (VOC).**II. Operational Restrictions**

None

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest 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 method(s):

- a. Emission Limitations: 1.07 lbs PM₁₀/hr, 4.69 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- b. Emission Limitations: 3.27 lbs CO/hr, 14.32 tpy CO

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

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- c. Emission Limitations: 2.47 lbs OC/hr, 10.82 tons OC/yr

Applicable Compliance Method: The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- d. Emission Limitations: 0.57 lbs NO_x/hr, 2.50 tons NO_x/yr

Applicable Compliance Method: The hourly allowable NO_x emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- e. Emission Limitations: 0.07 lb SO₂/hr, 0.31 ton SO₂/yr

Applicable Compliance Method: The hourly allowable SO₂ emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation

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by 8760 and dividing by 2000).

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Emissions Unit ID: P029

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- f. Emission Limitations: 0.62 lb formaldehyde/hr, 2.72 tons formaldehyde/yr

Applicable Compliance Method: The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- g. Emission Limitation: Visible particulate shall not exceed 20% opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

Johns

PTI A

Emissions Unit ID: P029

Issued: To be entered upon final issuance

B. State Only Enforceable Section**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P029 - line 86 curing operations (Modification to PTI #03-06479 issued January 20, 1994 and administratively modified on February 19, 2002) Modification to allow production rate increase.		

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

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Issued: To be entered upon final issuance

None

Emissions Unit ID: P029

VI. Miscellaneous Requirements

None

Johns

PTI A

Emissions Unit ID: P044

Issued: To be entered upon final issuance

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P044 - line 82 curing operations	OAC rule 3745-31-05(A)(3) 40 CFR Part 63, Subpart NNN
Modification of existing emissions unit to allow for production rate increase.	OAC rule 3745-21-07(G)(1) OAC rule 3745-17-11(B) OAC rule 3745-23-06(B) OAC rule 3745-21-08(B) OAC rule 3745-18-06(E)
	OAC rule 3745-17-07(A)

Applicable Emissions
Limitations/Control
Measures

See A.1.2.b

See A.1.2.d

The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).

See A.1.2.c

See A.1.2.b

1.78 pounds (lbs) particulate matter of 10 microns or less (PM₁₀)/hour (hr), 7.80 tons per year (tpy) PM₁₀ (See A.1.2.a)

5.00 lbs carbon monoxide (CO)/hr, 21.90 tpy CO

4.11 lbs organic compounds (OC)/hr, 18.00 tpy OC (See A.1.2.g)

4.57 lbs nitrogen oxide (NO_x)/hr, 20.02 tpy NO_x

0.12 lb sulfur dioxide (SO₂)/hr, 0.53 tpy SO₂

1.03 lbs formaldehyde/hr, 4.51 tpy formaldehyde

Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.

See A.1.2.e

See A.1.2.f

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

- 2.a** All particulate matter emissions are PM₁₀.
- 2.b** 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.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e.** 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit. (The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)
- 2.f** This emissions unit does not involve the processing of a liquid organic material.

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Emissions Unit ID: P044

Issued: To be entered upon final issuance**2.g** All OC are volatile organic compounds (VOC).**II. Operational Restrictions**

None

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest 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 method(s):

- a. Emission Limitations: 1.78 lbs PM₁₀/hr, 7.80 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- b. Emission Limitations: 5.00 lbs CO/hr, 21.90 tpy CO

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

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- c. Emission Limitations: 4.11 lbs OC/hr, 18.00 tons OC/yr

Applicable Compliance Method: The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- d. Emission Limitations: 4.57 lbs NO_x/hr, 20.02 tons NO_x/yr

Applicable Compliance Method: The hourly allowable NO_x emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- e. Emission Limitations: 0.12 lb SO₂/hr, 0.53 ton SO₂/yr

Applicable Compliance Method: The hourly allowable SO₂ emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation

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by 8760 and dividing by 2000).

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- f. Emission Limitations: 1.03 lbs formaldehyde/hr, 4.51 tons formaldehyde/yr

Applicable Compliance Method: The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- g. Emission Limitation: Visible PE shall not exceed 20% opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

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Emissions Unit ID: P044

Issued: To be entered upon final issuance

B. State Only Enforceable Section**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P044 - line 82 curing operations		
Modification of existing emissions unit to allow for production rate increase.		

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

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Emissions Unit ID: P044

None

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Emissions Unit ID: P091

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P091 - line 85 forming and collection	OAC rule 3745-31-05(A)(3) OAC rule 3745-17-07(A) 40 CFR Part 63, Subpart NNN OAC rule 3745-21-07(G)(2) OAC rule 3745-17-11(B) OAC rule 3745-23-06(B) OAC rule 3745-21-08(B) OAC rule 3745-18-06(E)

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<u>Applicable Emissions Limitations/Control Measures</u>	emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).	See A.I.2.e
6.77 pounds (lbs) particulate emissions (PE)/hour (hr), 29.66 tons per year (tpy) PE (See A.I.2.a)	None (See A.II.1)
10.32 lbs particulate matter of 10 microns or less (PM ₁₀), 45.20 tpy PM ₁₀	See A.I.2.b
31.37 lbs carbon monoxide (CO)/hr, 137.40 tpy CO	See A.I.2.d
3.20 lbs organic compounds (OC)/hr, 14.02 tpy OC (See A.I.2.f)	See A.I.2.c
1.23 lbs nitrogen oxide (NO _x)/hr, 5.39 tpy NO _x	See A.I.2.b
0.20 lb sulfur dioxide (SO ₂)/hr, 0.88 tpy SO ₂	
0.81 lbs formaldehyde/hr, 3.55 tpy formaldehyde	
Visible PE from the stack(s) serving this	

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

- 2.a** All particulate matter emitted is PM10. Particulate emissions (as defined in OAC rule 3745-17-01) for this emissions unit is the portion of particulate matter measurable by the applicable test methods (Methods 1-5) in Appendix A of 40 CFR Part 60.
- 2.b** 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.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e** 40 CFR Part 63 Subpart NNN is not applicable to this emissions unit because this is a refurbished emissions unit that produces bonded heavy-density product and the fixed capital cost of the new components do not exceed 50% of the fixed capital cost required to construct a comparable new source; new source as defined in 40 CFR 63.2.

2.f All OC are volatile organic compounds (VOC).

II. Operational Restrictions

1. The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

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3. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the company identification for each liquid organic material employed in this emissions unit; and
 - b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

V. Testing Requirements

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

- a. Emission Limitations: 6.77 lbs PE/hr, 29.66 tpy PE

Applicable Compliance Method: The hourly allowable PE limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-5 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- b. Emission Limitations: 10.32 lbs PM₁₀/hr, 45.20 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was

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established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- c. Emission Limitations: 31.37 lbs CO/hr, 137.40 tpy CO

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- d. Emission Limitations: 3.20 lbs OC/hr, 14.02 tons OC/yr

Applicable Compliance Method: The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- e. Emission Limitations: 1.23 lbs NOx/hr, 5.39 tons NOx/yr

Applicable Compliance Method: The hourly allowable NOx emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate

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compliance by testing in accordance with Methods 1-4, and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- f. Emission Limitations: 0.20 lb SO₂/hr, 0.88 ton SO₂/yr

Applicable Compliance Method: The hourly allowable SO₂ emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- g. Emission Limitations: 0.81 lb formaldehyde/hr, 3.55 tons formaldehyde/yr

Applicable Compliance Method: The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- h. Emission Limitation: Visible PE shall not exceed 20 % opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods

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specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P091 - line 85 forming and collection		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P092 - line 87 forming and collection	OAC rule 3745-31-05(A)(3) 40 CFR Part 63, Subpart NNN OAC rule 3745-21-07(G)(2) OAC rule 3745-17-11(B) OAC rule 3745-23-06(B) OAC rule 3745-21-08(B) OAC rule 3745-18-06(E)
	OAC rule 3745-17-07(A)

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<u>Applicable Emissions Limitations/Control Measures</u>	
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).	None (See A.II.1)
7.41 pounds (lbs) particulate matter of 10 microns or less (PM ₁₀)/hour (hr), 32.46 tons per year (tpy) PM ₁₀ (See A.I.2.a)	See A.I.2.b
7.58 lbs carbon monoxide (CO)/hr, 33.20 tpy CO	See A.I.2.d
7.51 lbs organic compounds (OC)/hr, 32.89 tpy OC (See A.I.2.f)	See A.I.2.c
0.31 lbs nitrogen oxide (NO _x)/hr, 1.36 tpy NO _x	See A.I.2.b
0.12 lb sulfur dioxide (SO ₂)/hr, 0.53 tpy SO ₂	
1.90 lbs formaldehyde/hr, 8.32 tpy formaldehyde	
Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.	

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

- 2.a** All particulate matter emissions are PM₁₀.
- 2.b** 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.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e** 40 CFR Part 63 Subpart NNN is not applicable to this emissions unit because this is a refurbished emissions unit that produces bonded heavy-density product and the fixed capital cost of the new components do not exceed 50% of the fixed capital cost required to construct a comparable new source; new source as defined in 40 CFR 63.2.
- 2.f** All OC are volatile organic compounds (VOC).

II. Operational Restrictions

1. The use of any photochemically reactive material in this emissions unit, as defined in OAC rule 3745-21-01, is prohibited.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

3. The permittee shall maintain monthly records of the following information for this emissions unit:

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- a. the company identification for each liquid organic material employed in this emissions unit; and
- b. documentation on whether or not each liquid organic material employed is a photochemically reactive material.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall submit quarterly deviation (excursion) reports that identify each month during which a photochemically reactive material was employed. These deviation reports shall be submitted in accordance with paragraph A.1.c of the General Terms and Conditions of this permit.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitations: 7.41 lbs PM₁₀/hr, 32.46 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- b. Emission Limitations: 7.58 lbs CO/hr, 33.20 tpy CO

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived

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from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- c. Emission Limitations: 7.51 lbs OC/hr, 32.89 tons OC/yr

Applicable Compliance Method: The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- d. Emission Limitations: 0.31 lbs NO_x/hr, 1.36 tons NO_x/yr

Applicable Compliance Method: The hourly allowable NO_x emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

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- e. Emission Limitations: 0.12 lb SO₂/hr, 0.53 ton SO₂/yr

Applicable Compliance Method: The hourly allowable SO₂ emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- f. Emission Limitations: 1.90 lbs formaldehyde/hr, 8.32 tons formaldehyde/yr

Applicable Compliance Method: The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- g. Emission Limitation: Visible PE shall not exceed 20% opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P092 - line 87 forming and collection		

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

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P093 - line 87 curing operation	OAC rule 3745-31-05(A)(3) 40 CFR Part 63, Subpart NNN
Modification of existing emissions unit to increase allowable emissions.	OAC rule 3745-21-07(G)(1) OAC rule 3745-17-11(B) OAC rule 3745-23-06(B) OAC rule 3745-21-08(B) OAC rule 3745-18-06(E)
	OAC rule 3745-17-07(A)

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Applicable Emissions Limitations/Control Measures	rule.
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).	None (See A.I.2.f)
1.78 pounds (lbs) particulate matter of 10 microns or less (PM ₁₀)/hour (hr), 7.80 tons per year (tpy) PM ₁₀ (See A.I.2.a)	See A.I.2.b
4.37 lbs carbon monoxide (CO)/hr, 19.14 tpy CO	See A.I.2.d
2.88 lbs organic compounds (OC)/hr, 12.61 tpy OC (See A.I.2.g)	See A.I.2.c
3.66 lbs nitrogen oxide (NO _x)/hr, 16.03 tpy NO _x	See A.I.2.b
0.09 lb sulfur dioxide (SO ₂)/hr, 0.39 tpy SO ₂	
0.82 lb formaldehyde/hr, 3.59 tpy formaldehyde	
Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by	

2. Additional Terms and Conditions

- 2.a** All particulate matter emissions are PM₁₀.
- 2.b** 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.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e** 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit. (The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)
- 2.f** This emissions unit does not involve the processing of a liquid organic material.
- 2.g** All OC are volatile organic compounds (VOC).

II. Operational Restrictions

None

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III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest 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 method(s):

- a. Emission Limitations: 1.78 lbs PM₁₀/hr, 7.80 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- b. Emission Limitations: 4.37 lbs CO/hr, 19.14 tpy CO

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- c. Emission Limitations: 2.88 lbs OC/hr, 12.61 tons OC/yr

Applicable Compliance Method: The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated

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in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- d. Emission Limitations: 3.66 lbs NO_x/hr, 16.03 tons NO_x/yr

Applicable Compliance Method: The hourly allowable NO_x emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- e. Emission Limitations: 0.09 lb SO₂/hr, 0.39 ton SO₂/yr

Applicable Compliance Method: The hourly allowable SO₂ emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

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- f. Emission Limitations: 0.82 lb formaldehyde/hr, 3.59 tons formaldehyde/yr

Applicable Compliance Method: The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- g. Emission Limitation: Visible PE shall not exceed 20% opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P093 - line 87 curing operation Modification of existing emissions unit to increase allowable emissions.		

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

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None

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A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P094 - line 84 curing operation	OAC rule 3745-31-05(A)(3) 40 CFR Part 63, Subpart NNN
Modification of existing emissions unit to increase allowable emissions.	OAC rule 3745-21-07(G)(1) OAC rule 3745-17-11(B) OAC rule 3745-23-06(B) OAC rule 3745-21-08(B) OAC rule 3745-18-06(E)
	OAC rule 3745-17-07(A)

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Applicable Emissions <u>Limitations/Control</u> <u>Measures</u>	See A.I.2.b
	See A.I.2.d
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).	See A.I.2.c
	See A.I.2.b
0.76 pounds (lbs) particulate matter of 10 microns or less (PM ₁₀)/hour (hr), 3.33 tons per year (tpy) PM ₁₀ (See A.I.2.a)	
1.86 lbs carbon monoxide (CO)/hr, 8.15 tpy CO	
1.23 lbs organic compounds (OC)/hr, 5.39 tpy OC (See A.I.2.g)	
1.56 lbs nitrogen oxide (NO _x)/hr, 6.83 tpy NO _x	
0.04 lb sulfur dioxide (SO ₂)/hr, 0.18 tpy SO ₂	
0.35 lb formaldehyde/hr, 1.53 tpy formaldehyde	
Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.	
See A.I.2.e	
None (See A.I.2.f)	

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

- 2.a** All particulate matter emissions are PM₁₀.
- 2.b** 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.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e** 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit. (The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)
- 2.f** This emissions unit does not involve the processing of a liquid organic material.

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None

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest 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 method(s):

- a. Emission Limitations: 0.76 lbs PM₁₀/hr, 3.33 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- b. Emission Limitations: 1.86 lbs CO/hr, 8.15 tpy CO

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

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- c. Emission Limitations: 1.23 lbs OC/hr, 5.39 tons OC/yr

Applicable Compliance Method: The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- d. Emission Limitations: 1.56 lbs NO_x/hr, 6.83 tons NO_x/yr

Applicable Compliance Method: The hourly allowable NO_x emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- e. Emission Limitations: 0.04 lb SO₂/hr, 0.18 ton SO₂/yr

Applicable Compliance Method: The hourly allowable SO₂ emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation

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by 8760 and dividing by 2000).

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- f. Emission Limitations: 0.35 lb formaldehyde/hr, 1.53 tons formaldehyde/yr

Applicable Compliance Method: The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- g. Emission Limitation: Visible PE shall not exceed 20 % opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

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Emissions Unit ID: P094

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P094 - line 84 curing operation Modification of existing emissions unit to increase allowable emissions.		

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

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Emissions Unit ID: P094

None

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Emissions Unit ID: P095

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P095 - line 85 curing operation	OAC rule 3745-31-05(A)(3) 40 CFR Part 63, Subpart NNN
Modification of existing emissions unit to increase allowable emissions.	OAC rule 3745-21-07(G)(1) OAC rule 3745-17-11(B) OAC rule 3745-23-06(B) OAC rule 3745-21-08(B) OAC rule 3745-18-06(E)
	OAC rule 3745-17-07(A)

Applicable Emissions <u>Limitations/Control</u> <u>Measures</u>	See A.I.2.b
	See A.I.2.d
The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A).	See A.I.2.c
	See A.I.2.b
0.76 pounds (lbs) particulate matter of 10 microns or less (PM ₁₀)/hour (hr), 3.33 tons per year (tpy) PM ₁₀ (See A.I.2.a)	
1.86 lbs carbon monoxide (CO)/hr, 8.15 tpy CO	
1.23 lbs organic compounds (OC)/hr, 5.39 tpy OC (See A.I.2.g)	
1.56 lbs nitrogen oxide (NO _x)/hr, 6.83 tpy NO _x	
0.04 lb sulfur dioxide (SO ₂)/hr, 0.18 tpy SO ₂	
0.35 lb formaldehyde/hr, 1.53 tpy formaldehyde	
Visible particulate emissions (PE) from the stack(s) serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by rule.	
See A.I.2.e	
None (See A.I.2.f)	

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- 2.a** All particulate matter emissions are PM₁₀.
- 2.b** 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.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.d** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.e** 40 CFR Part 63 Subpart NNN is not applicable to existing flame attenuation lines producing bonded heavy-density product. For the purpose of 40 CFR 63 Subpart NNN, this modified emissions unit is still considered an existing emissions unit. (The modifications performed do not constitute reconstruction as defined in 40 CFR 63.2)
- 2.f** This emissions unit does not involve the processing of a liquid organic material.

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None

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform checks at least 5 days per week, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

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

2. Notwithstanding the frequency of reporting requirements specified in section A.IV, the permittee may reduce the frequency of visual observations for this emissions unit from at least 5 days per week to weekly readings if the following conditions are met:
 - a. for 1 full quarter the facility's visual observations indicate no abnormal visible emissions; and
 - b. the permittee continues to comply with all the record keeping and monitoring requirements specified in section A.III.1.

The permittee shall revert to 5 days per week readings if any abnormal visible emissions are observed.

IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Ohio EPA, Northwest 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 method(s):

- a. Emission Limitations: 0.76 lbs PM₁₀/hr, 3.33 tpy PM₁₀

Applicable Compliance Method: The hourly allowable PM₁₀ limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 201/201A and 202 of 40 CFR Part 51, Appendix M. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, Northwest District Office.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- b. Emission Limitations: 1.86 lbs CO/hr, 8.15 tpy CO

Applicable Compliance Method: The hourly allowable CO emission limitation was established by multiplying the maximum glass pull rate (tons/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4 and 10 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

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- c. Emission Limitations: 1.23 lbs OC/hr, 5.39 tons OC/yr

Applicable Compliance Method: The hourly allowable OC emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance hourly by testing in accordance with Method 1-4, and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- d. Emission Limitations: 1.56 lbs NO_x/hr, 6.83 tons NO_x/yr

Applicable Compliance Method: The hourly allowable NO_x emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 7 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- e. Emission Limitations: 0.04 lb SO₂/hr, 0.18 ton SO₂/yr

Applicable Compliance Method: The hourly allowable SO₂ emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 6 of 40 CFR, Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation

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by 8760 and dividing by 2000).

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- f. Emission Limitations: 0.35 lb formaldehyde/hr, 1.53 tons formaldehyde/yr

Applicable Compliance Method: The hourly allowable formaldehyde emission limitation was established by multiplying the maximum glass pull rate (lb/hr) [as indicated in the permit application] by an emission factor (lb/lb of glass) derived from stack testing of a similar emissions unit. If required, the permittee shall demonstrate compliance by testing in accordance with Methods 1-4, and 316 or 318 of 40 CFR Part 60, Appendix A.

Compliance with the annual emission limitation shall be assumed as long as compliance with the hourly emission limitation is maintained (the annual emission limitation was calculated by multiplying the hourly emission limitation by 8760 and dividing by 2000).

- g. Emission Limitation: Visible PE shall not exceed 20% opacity, as a six-minute average, except as otherwise provided by rule.

Applicable Compliance Method: If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

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Emissions Unit ID: P095

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P095 - line 85 curing operation Modification of existing emissions unit to increase allowable emissions.		

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

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None