



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center  
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P.O. Box 1049  
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL  
LAWRENCE COUNTY  
Application No: 07-00493**

**CERTIFIED MAIL**

Y	TOXIC REVIEW
Y	PSD
Y	SYNTHETIC MINOR
Y	CEMS
	MACT
	NSPS
	NESHAPS
Y	NETTING
	MAJOR NON-ATTAINMENT
Y	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

**DATE:** 2/7/2002

Biomass Energy, LLC - South Point Power  
Mark Harris  
65 Avenue of Champions  
Nicholasville, KY 40356

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

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

CC: USEPA

PCHD



**FINAL PERMIT TO INSTALL 07-00493**

Application Number: 07-00493

APS Premise Number: 0744000147

Permit Fee: **\$8000**

Name of Facility: Biomass Energy, LLC - South Point Power

Person to Contact: Mark Harris

Address: 65 Avenue of Champions  
Nicholasville, KY 40356

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

**100 Collins Rd  
South Point, Ohio**

Description of proposed emissions unit(s):

**Modification to Seven Wood Fired Boilers and associated equipment with baghouse, CO Oxidation Catalyst and NO<sub>x</sub> SCR.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

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

#### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.10 below if no deviations occurred during the quarter.

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

## 2. Scheduled Maintenance/Malfunction Reporting

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

## 3. Risk Management Plans

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

## 4. Title IV Provisions

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

## 5. Severability Clause

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

## 6. General Requirements

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

## **7. Fees**

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

## **8. Federal and State Enforceability**

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

## **9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

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

## 10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is

granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

**11. Best Available Technology**

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

**12. Air Pollution Nuisance**

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

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

**1. Compliance Requirements**

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

**2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements**

The permittee shall submit required reports in the following manner:

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

**3. Permit Transfers**

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

**4. Termination of Permit To Install**

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

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

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

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

**6. Public Disclosure**

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

**7. Applicability**

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

**8. Construction Compliance Certification**

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

**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., 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/PM <sub>10</sub> (stack)	191.3
PM (fugitive)	17.1
PM <sub>10</sub> (fugitive)	3.3
NOx	792.6
SO <sub>2</sub>	196
CO	99.95
VOC	83
Pb	0.14
NH <sub>3</sub> (Ammonia)	38.36
HCL (Hydrogen Chloride)	8.96

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

1. PSD REQUIREMENTS

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

2. The emissions of Hazardous Air Pollutants (HAPs), as defined in Section 112(b) of the Clean Air Act, from all emissions units located at this facility combined, shall not exceed 10 tons per year for an individual HAP and 25 tons per year for any combination of HAPs\*, per rolling 12 month period.

\* Since the restricted potential to emit for HAPs is below 10 tons individual and 25 tons combined, no monitoring, record keeping, or reporting requirements are necessary to meet these limits (with the exception of HCL which is close to 10 tpy).

3. The following emission units(EU) are also being installed as part of this project:

<u>EU</u>	<u>BACT</u>	<u>Emissions</u>
wet cooling tower	mist eliminator	1.12 TPY

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

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B001 - 175 mmBtu/hr Wood Fired Boiler # 1 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.	OAC rule 3745-31-05(A)(3)	24.5 pounds nitrogen oxides (NOx) per hour, and 107.4 TPY NOx*; 6.6 pounds sulfur dioxide (SO <sub>2</sub> ) per hour, and 28 TPY SO <sub>2</sub> *; 1.9 pounds carbon monoxide (CO) per hour, and 8.27 TPY CO*; 0.0084 pounds lead (Pb) per hour, and 0.02 TPY Pb* 1.25 pounds ammonia (NH <sub>3</sub> ) per hour, and 5.48 TPY (NH <sub>3</sub> ) 0.67 pounds hydrogen chloride (HCL) per hour, and 1.28 TPY HCL*
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and OAC rule 3745-31-10 through 20, and OAC rule 3745-17-07(A)(1).  See section A.I.2.f below.
		2.7 pounds volatile organic compounds (VOC) per hour, and 11.8 TPY VOC; 8.14 pounds particulates (PM/PM <sub>10</sub> ) per hour and 21.5 TPY PM/PM <sub>10</sub> *; See section A.I.2.a. below.
		See section A.I.2.e below.
	OAC rule 3745-31-05(D)	57.89 TPY CO* from B001 - B007 total

Synthetic Minor to avoid Prevention of Significant Deterioration for CO	
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.
OAC rule 3745-17-10(C)(1)	See section A.I.2.b. below.
OAC rule 3745-18-06(E)(2)	See section A.I.2.b. below.
OAC rule 3745-23-06(B)	See section A.I.2.c. below.
OAC rule 3745-21-08(B)	See section A.I.2.d. below.
	* the TPY mass emission rate limitations are based on a rolling, 12 month summation of the monthly emissions.

## 2. Additional Terms and Conditions

- 2.a** Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.
- 2.b** The requirements of this rule are less stringent than the requirements of OAC rule 3745-31-05(A)(3).
- 2.c** All stationary sources of nitrogen oxide shall minimize nitrogen oxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f. below to minimize nitrogen oxide emissions.
- 2.d** All stationary sources of carbon monoxide shall minimize carbon monoxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f. below to minimize carbon monoxide emissions.
- 2.e** Compliance with 40 CFR 52.21 and OAC rule 3745-31-(10) through (20) shall be demonstrated by the following Best Available Control Technologies (BACT):
- PM/PM10 - Use of reverse air baghouse with 98% control efficiency. For this permit, it is assumed that all PM emissions are PM<sub>10</sub>.
- VOC- Use of good combustion practices in the operation of the boiler and use of an oxidation catalyst.
- 2.f** The permittee shall install and operate the following control technologies as part of the Best Available Technology (BAT) requirements:

NOx - Use of selective catalytic reduction (SCR) with a NOx control efficiency of 80%.

CO- Use of an oxidation catalyst with a CO control efficiency of 95.7%.

SO<sub>2</sub>- Use of sodium bicarbonate (NaHCO<sub>3</sub>) injection with a SO<sub>2</sub> control efficiency of 70%.

**II. Operational Restrictions**

1. These boilers will burn a mixed wood waste fuel consisting of a mixture of Mill's Pride wood waste and sawmill wood waste products. This fuel mixture shall not exceed 32 percent concentration of Mill's Pride wood waste product (the worst case in terms of annual emissions for any restricted pollutant) on a monthly and an annual basis. This 32 percent mixture equates to a usage rate of 41,714 tons of Mill's Pride wood waste annually, at full-time operation of one boiler.

The maximum annual combined Mill's Pride wood waste usage rate in emissions units B001, B002, B003, B004, B005, B006 and B007 shall not exceed 291,998 tons, based on a rolling, 12-month rolling summation of the usage rates.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Tons of Fuel</u>
1	24333.2
1-2	48666.4
1-3	72999.6
1-4	97332.8
1-5	121666
1-6	145999.2
1-7	170332.4
1-8	194665.6
1-9	218998.8
1-10	243332
1-11	267665.2
1-12	291998

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual combined Mill's Pride wood waste fuel use limitation shall be based upon a rolling, 12 month summation of the fuel.

2. The permittee shall ensure that thorough mixing of the fuel components occurs prior to burning in this emission unit, and that the mixture percentage is maintained at no more than 32 percent Mill's Pride content. This shall be accomplished by means of mixed delivery into the raw wood

storage building with further mixing in the wood handling system, the dryer grinders and as the material is distributed to the boilers.

3. The pressure drop across the baghouse shall be maintained within a range established during the initial compliance test that demonstrates compliance, in inches of water, while the emission unit is in operation.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for B001, B002, B003, B004, B005, B006 and B007:
  - a. The amount of Mill's Pride wood waste used each month, the total amount of fuel used each month and the percent Mill's Pride content.
  - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12 month summation of the amount of Mill's Pride wood waste used.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative amounts of Mill's Pride wood waste and the total fuel used for each calendar month and the percent Mill's Pride content.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation.

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

3. The permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive

maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

5. The permittee shall operate and maintain equipment to continuously monitor and record SO<sub>2</sub> from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous SO<sub>2</sub> monitoring system including, but not limited to, parts per million SO<sub>2</sub> on an instantaneous (one-minute) basis, emissions of SO<sub>2</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO<sub>2</sub> monitoring system designed to ensure continuous valid and representative readings of SO<sub>2</sub>. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous SO<sub>2</sub> monitoring system must be kept on site and available for inspection during regular office hours.
7. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR

Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

9. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

10. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12 month Mill's Pride wood waste usage limitation and exceedances of the 32 % Mill's Pride content limitation; and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative Mill's Pride wood waste usage levels.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The deviation (excursion) reports shall be submitted in accordance with Part 1 - General Terms and Conditions of this permit under section (A)(1).
4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions

unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

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

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration magnitude, reason (if known), and corrective actions taken (if any), of all instances of SO<sub>2</sub> values in excess of the applicable limit(s) specified OAC Chapter 3745-18, the average daily SO<sub>2</sub> emission rates (lb/mmBtu), and the 30-day rolling, weighted average SO<sub>2</sub> emission rates (lb/mmBtu). These reports shall also contain the total SO<sub>2</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous SO<sub>2</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

6. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in 40 CFR Part 76 or any limitations specified in the terms and

conditions of this permit. These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

7. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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

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

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

8.14 pounds PM/PM<sub>10</sub> per hour

2.7 pounds VOC per hour

Applicable Compliance Method:

The following controlled emission factors were used to calculate these emission limits:

Controlled emission factor = 0.739 lb/ton PM/PM<sub>10</sub>

0.22 lb/ton VOC

These emission limits were established by multiplying the emission factor in lb/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- b. Emission Limitation:

1.9 pounds CO per hour

Applicable Compliance Method:

This emissions limit was established by multiplying the heat content of the 0.007937 MMBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/MMBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- c. Emission Limitation:

24.5 pounds NO<sub>x</sub> per hour

6.6 pounds SO<sub>2</sub> per hour

Applicable Compliance Method:

The NO<sub>x</sub> emissions limit was established by multiplying the heat content of the 0.007937 mmBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

The SO<sub>2</sub> emissions limit was established by multiplying the controlled emission factor of 0.6 lb/ton, times the tons of fuel per hour.

Initial compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Continual compliance with those limitations shall be demonstrated by the use of the CEM in conditions A.III.7 and A.III.9, based upon an hourly averaging period as allowed in 40 CFR Part 60.

d. Emission Limitation:

107.4 TPY NO<sub>x</sub>  
8.27 TPY CO

Applicable Compliance Method:

These emission limits were established by multiplying the heat content of the 0.00588 mmBtu/lb of the worst case fuel mixture (32% Mill's Pride and sawmill waste), times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times the tons of fuel per year (maximum of 130,201 TPY total fuel at 32% Mill's Pride content).

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

e. Emission Limitation:

21.5 TPY PM/PM<sub>10</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.33 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of

fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

f. Emission Limitation:

28 TPY SO<sub>2</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.43 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

g. Emission Limitation:

11.8 TPY VOC

Applicable Compliance Method:

These emission limits were established by multiplying the lb/hour allowable emission limit by 8760 hours/year divided by 2000 lb/ton.

Compliance shall be determined by multiplying the lb/hour emissions, based on the results of the most recent performance test which demonstrated compliance, by the actual operating hours per year, divided by 2000 lb/ton.

h. Emission Limitation:

0.0084 pounds per hour Pb and 0.02 TPY Pb

Applicable Compliance Method:

Compliance shall be determined by using the emission factor of 0.000048 lb/mmBtu (from AP-42 Fifth ed. 07/01). To calculate the hourly emission rate, multiply the lb/mmBtu emission factor by the maximum hourly heat input of the boiler (mmBtu/hr). If required, the permittee shall demonstrate compliance by emission testing in accordance with US EPA Method 12 of 40 CFR Part 60, Appendix A. Compliance with the annual emission limitation shall be determined using the emission factor of 0.000328 lb/ton (based on mass balance, using average fuel value). Multiply the lb/ton emission factor by the amount of fuel used during the month, to arrive at the tons/month emissions. The

monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

i. Emission Limitation:

1.25 pounds Ammonia (NH<sub>3</sub>) per hour and 5.48 TPY Ammonia (NH<sub>3</sub>)

Applicable Compliance Method:

Compliance with the lb/hr emission limitation shall be determined by multiplying the emission factor of 0.07 lbs of ammonia/ton (emission factor supplied by permittee, based on mass balance) by the amount of fuel used per hour. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation and dividing by 2000 lb/ton.

j. Emission Limitation:

57.89 TPY CO total from B001 - B007

Applicable Compliance Method:

Compliance shall be determined by multiplying the actual emissions for CO (calculated in accordance with section A.V.1.d.) times the total number of boilers.

k. Emission Limitation:

Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the methods and procedures of Method 5 of 40 CFR Part 60, Appendix A.

l. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in OAC rule 3745-17-03(B)(1) determined according to Method 9 of 40 CFR Part 60, Appendix A.

m. Emission Limitation

291,998 tons of Mill's Pride wood waste per rolling 12-month period

Applicable Compliance Method:

As per the recordkeeping required by Section III.1., the monthly usage shall be added to the previous 11 months to determine the rolling 12-month total usage.

n. Emission Limitation:

0.67 pound HCL per hour, and 1.28 TPY HCL

Applicable Compliance Method:

The lbs/hr emission limitation was established by multiplying the emission factor of 0.061 lbs of HCL/ton (emission factor supplied by permittee, based on fuel analysis) by the amount of fuel used per hour.

The TPY emissions limit was established by multiplying the emission factor of 0.00167 lb/mmBtu (based on the a maximum of 32% Mill's Pride fuel), times 175 mmBtu/hr ( maximum heat input of the boiler) , times 8760 hrs/yr, divided by 2000 lb/ton.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Compliance with the TPY emission limitation shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

2. Emission Testing Requirements

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

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emission unit.
- b. The emission testing shall be conducted to demonstrate compliance with the PM/PM10, SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO emission limits.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 5 of 40 CFR Part 60, Appendix A, for SO<sub>2</sub>, Method 6 of 40 CFR Part 60, Appendix A, for NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A, for CO, Method 10 of 40 CFR Part 60, Appendix A, for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A, for HCL, Method 26 of 40 CFR Part 60, Appendix A, as appropriate. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

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

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

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

3. Continuous Opacity Monitoring - Certified Systems  
Statement of Certification

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

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

4. Continuous SO<sub>2</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous SO<sub>2</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous SO<sub>2</sub> monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous SO<sub>2</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2 and/or 40 CFR Part 75.

5. Continuous NO<sub>x</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days of the effective date of this permit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.

6. Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B001 - 175 mmBtu/hr Wood Fired Boiler # 1 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.		Compliance with OEPA Air Toxics Policy  See section B.III.1. below.

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (B001) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hydrogen Chloride

TLV (mg/m3): 7.5

Maximum Hourly Emission Rate (lbs/hr): 2.17

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.115

MAGLC (ug/m3): 179

Pollutant: Manganese

TLV (mg/m3): 5.0

Maximum Hourly Emission Rate (lbs/hr): 0.976

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.052

MAGLC (ug/m3): 119

Pollutant: Formaldehyde

TLV (mg/m3): 0.370

Maximum Hourly Emission Rate (lbs/hr): 0.595

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.032

MAGLC (ug/m3): 9

Pollutant: Benzene

TLV (mg/m3): 32.0

Maximum Hourly Emission Rate (lbs/hr): 0.722

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.038

MAGLC (ug/m3): 762

Pollutant: Ammonia

TLV (mg/m3): 17.41

Maximum Hourly Emission Rate (lbs/hr): 8.75

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):2.13

MAGLC (ug/m3): 404

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such

parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

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

#### **IV. Reporting Requirements**

None

#### **V. Testing Requirements**

None

#### **VI. Miscellaneous Requirements**

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Biomass Energy, LLC - South Point Power  
PTI Application: **07-00493**  
**Issued: 2/7/2002**

Facility ID: **0744000147**  
Emissions Unit ID: B001

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B002 -175 mmBtu/hr Wood Fired Boiler # 2 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.	OAC rule 3745-31-05(A)(3)	24.5 pounds nitrogen oxides (NOx) per hour, and 107.4 TPY NOx*; 6.6 pounds sulfur dioxide (SO <sub>2</sub> ) per hour, and 28 TPY SO <sub>2</sub> *; 1.9 pounds carbon monoxide (CO) per hour, and 8.27 TPY CO*; 0.0084 pounds lead (Pb) per hour, and 0.02 TPY Pb* 1.25 pounds ammonia (NH <sub>3</sub> ) per hour, and 5.48 TPY (NH <sub>3</sub> ) 0.67 pounds hydrogen chloride (HCL) per hour, and 1.28 TPY HCL*
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and OAC rule 3745-31-10 through 20, and OAC rule 3745-17-07(A)(1).  See section A.I.2.f below.
		2.7 pounds volatile organic compounds (VOC) per hour, and 11.8 TPY VOC; 8.14 pounds particulates (PM/PM <sub>10</sub> ) per hour and 21.5 TPY PM/PM <sub>10</sub> *; See section A.I.2.a. below.
		See section A.I.2.e below.
	OAC rule 3745-31-05(D)	57.89 TPY CO* from B001 - B007 total

Synthetic Minor rule to avoid Prevention of Significant Deterioration for CO	
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.
OAC rule 3745-17-10(C)(1)	See section A.I.2.b. below.
OAC rule 3745-18-06(E)(2)	See section A.I.2.b. below.
OAC rule 3745-23-06(B)	See section A.I.2.c. below.
OAC rule 3745-21-08(B)	See section A.I.2.d. below.
	* the TPY mass emission rate limitations are based on a rolling, 12 month summation of the monthly emissions.

## 2. Additional Terms and Conditions

- 2.a** Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.
- 2.b** The requirements of this rule are less stringent than the requirements of OAC rule 3745-31-05(A)(3).
- 2.c** All stationary sources of nitrogen oxide shall minimize nitrogen oxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f below to minimize nitrogen oxide emissions.
- 2.d** All stationary sources of carbon monoxide shall minimize carbon monoxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f below to minimize carbon monoxide emissions.
- 2.e** Compliance with 40 CFR 52.21 and OAC rule 3745-31-(10) through (20) shall be demonstrated by the following Best Available Control Technologies (BACT):
- PM/PM10 - Use of reverse air baghouse with 98% control efficiency. For this permit, it is assumed that all PM emissions are PM<sub>10</sub>.
- VOC- Use of good combustion practices in the operation of the boiler and use of an oxidation catalyst.

**2.f** The permittee shall install and operate the following control technologies as part of the Best Available Technology (BAT) requirements:

NOx - Use of selective catalytic reduction (SCR) with a NOx control efficiency of 80%.

CO- Use of an oxidation catalyst with a CO control efficiency of 95.7%.

SO<sub>2</sub>- Use of sodium bicarbonate (NaHCO<sub>3</sub>) injection with a SO<sub>2</sub> control efficiency of 70%.

**II. Operational Restrictions**

1. These boilers will burn a mixed wood waste fuel consisting of a mixture of Mill's Pride wood waste and sawmill wood waste products. This fuel mixture shall not exceed 32 percent concentration of Mill's Pride wood waste product (the worst case in terms of annual emissions for any restricted pollutant) on a monthly and an annual basis, This 32 percent mixture equates to a usage rate of 41,714 tons of Mill's Pride wood waste annually, at full-time operation of one boiler.

The maximum annual combined Mill's Pride wood waste usage rate in emissions units B001, B002, B003, B004, B005, B006 and B007 shall not exceed 291,998 tons, based on a rolling, 12-month rolling summation of the usage rates.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Tons of Fuel</u>
1	24333.2
1-2	48666.4
1-3	72999.6
1-4	97332.8
1-5	121666
1-6	145999.2
1-7	170332.4
1-8	194665.6
1-9	218998.8
1-10	243332
1-11	267665.2
1-12	291998

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual combined Mill's Pride wood waste fuel use limitation shall be based upon a rolling, 12 month summation of the fuel.

2. The permittee shall ensure that thorough mixing of the fuel components occurs prior to burning in this emission unit, and that the mixture percentage is maintained at no more than 32 percent Mill's Pride content. This shall be accomplished by means of mixed delivery into the raw wood storage building with further mixing in the wood handling system, the dryer grinders and as the material is distributed to the boilers.
3. The pressure drop across the baghouse shall be maintained within a range established during the initial compliance test that demonstrated compliance, in inches of water, while the emission unit is in operation.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for B001, B002, B003, B004, B005, B006 and B007:
  - a. The amount of Mill's Pride wood waste used each month, the total amount of fuel used each month and the percent Mill's Pride content.
  - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12 month summation of the amount of Mill's Pride wood waste used.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative amounts of Mill's Pride wood waste and the total fuel used for each calendar month and the percent Mill's Pride content.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation.

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

3. The permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure

continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

5. The permittee shall operate and maintain equipment to continuously monitor and record SO<sub>2</sub> from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous SO<sub>2</sub> monitoring system including, but not limited to, parts per million SO<sub>2</sub> on an instantaneous (one-minute) basis, emissions of SO<sub>2</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO<sub>2</sub> monitoring system designed to ensure continuous valid and representative readings of SO<sub>2</sub>. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous SO<sub>2</sub> monitoring system must be kept on site and available for inspection during regular office hours.
7. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.
9. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

10. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12 month Mill's Pride wood waste usage limitation and exceedances of the 32 % Mill's Pride content limitation; and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative Mill's Pride wood waste usage levels.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The deviation (excursion) reports shall be submitted in accordance with Part 1 - General Terms and Conditions of this permit under section (A)(1).
4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

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

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

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration magnitude, reason (if known), and corrective actions taken (if any), of all instances of SO<sub>2</sub> values in excess of the applicable limit(s) specified OAC Chapter 3745-18, the average daily SO<sub>2</sub> emission rates (lb/mmBtu), and the 30-day rolling, weighted average SO<sub>2</sub> emission rates (lb/mmBtu). These reports shall also contain the total SO<sub>2</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous SO<sub>2</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

6. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the

end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in 40 CFR Part 76 or any limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

7. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the

emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

8.14 pound PM/PM<sub>10</sub> per hour

2.7 pound VOC per hour

Applicable Compliance Method:

The following controlled emission factors were used to calculate these emission limits:

Controlled emission factor = 0.739 lb/ton PM/PM<sub>10</sub>

0.22 lb/ton VOC

These emission limits were established by multiplying the emission factor in lb/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- b. Emission Limitation:

1.9 pounds CO per hour

Applicable Compliance Method:

This emissions limit was established by multiplying the heat content of the 0.007937 mmBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- c. Emission Limitation:

24.5 pounds NO<sub>x</sub> per hour  
6.6 pounds SO<sub>2</sub> per hour

Applicable Compliance Method:

The NO<sub>x</sub> emissions limit was established by multiplying the heat content of the 0.007937 mmBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

The SO<sub>2</sub> emissions limit was established by multiplying the controlled emission factor of 0.6 lb/ton, times the tons of fuel per hour.

Initial compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Continual compliance with those limitations shall be demonstrated by the use of the CEM in conditions A.III.7 and A.III.9, based upon an hourly averaging period as allowed in 40 CFR Part 60.

d. Emission Limitation:

107.4 TPY NO<sub>x</sub>  
8.27 TPY CO

Applicable Compliance Method:

These emission limits were established by multiplying the heat content of the 0.00588 mmBtu/lb of the worst case fuel mixture (32% Mill's Pride and sawmill waste), times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times the tons of fuel per year (maximum of 130,201 TPY total fuel at 32% Mill's Pride content).

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

e. Emission Limitation:

21.5 TPY PM/PM<sub>10</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.33 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

f. Emission Limitation:

28 TPY SO<sub>2</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.43 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

g. Emission Limitation:

11.8 TPY VOC

Applicable Compliance Method:

These emission limits were established by multiplying the lb/hour allowable emission limit by 8760 hours/year divided by 2000 lb/ton.

Compliance shall be determined by multiplying the lb/hour emissions, based on the results of the most recent performance test which demonstrated compliance, by the actual operating hours per year, divided by 2000 lb/ton.

h. Emission Limitation:

0.0084 pounds per hour Pb and 0.02 TPY Pb

Applicable Compliance Method:

Compliance shall be determined by using the emission factor of 0.000048 lb/mmBtu (from AP-42 Fifth ed. 07/01). To calculate the hourly emission rate, multiply the

lb/mmBtu emission factor by the maximum hourly heat input of the boiler (mmBtu/hr). If required, the permittee shall demonstrate compliance by emission testing in accordance with US EPA Method 12 of 40 CFR Part 60, Appendix A. Compliance with the annual emission limitation shall be determined using the emission factor of 0.000328 lb/ton (based on mass balance, using average fuel value). Multiply the lb/ton emission factor by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

i. Emission Limitation:

1.25 pounds Ammonia (NH<sub>3</sub>) per hour and 5.48 TPY Ammonia (NH<sub>3</sub>)

Applicable Compliance Method:

Compliance with the lb/hr emission limitation shall be determined by multiplying the emission factor of 0.07 lbs of ammonia/ton (emission factor supplied by permittee, based on mass balance) by the amount of fuel used per hour. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation and dividing by 2000 lb/ton.

j. Emission Limitation:

57.89 TPY CO total from B001-B007

Applicable Compliance Method:

Compliance shall be determined by multiplying the actual emission for CO (calculated in accordance with section A.V.1.d.) times the total number of boilers.

k. Emission Limitation:

Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the methods and procedures of Method 5 of 40 CFR Part 60, Appendix A.

l. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in OAC rule 3745-17-03(B)(1) determined according to Method 9 of 40 CFR Part 60, Appendix A.

m. Emission Limitation

291,998 tons of Mill's Pride wood waste per rolling 12-month period

Applicable Compliance Method:

As per the recordkeeping required by Section III.1., the monthly usage shall be added to the previous 11 months to determine the rolling 12-month total usage.

n. Emission Limitation:

0.67 pound HCL per hour, and 1.278 TPY HCL

Applicable Compliance Method:

The lbs/hr emission limit was established by multiplying the emission factor of 0.061 lbs of HCL/ton (emission factor supplied by permittee, based on fuel analysis) by the amount of fuel used per hour.

The TPY emissions limit was established by multiplying the emission factor of 0.00167 lb/mmBtu (based on the a maximum of 32% Mill's Pride fuel), times 175 mmBtu/hr ( maximum heat input of the boiler) , times 8760 hrs/yr, divided by 2000 lb/ton.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee

shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Compliance with the TPY emission limitation shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

## 2. Emission Testing Requirements

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

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emission unit.
- b. The emission testing shall be conducted to demonstrate compliance with the PM/PM10, SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO emission limits.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 5 of 40 CFR Part 60, Appendix A, for SO<sub>2</sub>, Method 6 of 40 CFR Part 60, Appendix A, for NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A, for CO, Method 10 of 40 CFR Part 60, Appendix A, for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A, for HCL, Method 26 of 40 CFR Part 60, Appendix A, as appropriate. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

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

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

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

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

3. Continuous Opacity Monitoring - Certified Systems  
Statement of Certification

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

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

4. Continuous SO<sub>2</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous SO<sub>2</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous SO<sub>2</sub> monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous SO<sub>2</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2 and/or 40 CFR Part 75.

5. Continuous NO<sub>x</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days of the effective date of this permit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.

6. Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B002 - 175mmBtu/hr Wood Fired Boiler # 2 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.		Compliance with OEPA Air Toxics Policy  See section B.III.1. below.

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (B002) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hydrogen Chloride

TLV (mg/m3): 7.5

Maximum Hourly Emission Rate (lbs/hr): 2.17

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.115

MAGLC (ug/m3): 179

Pollutant: Manganese

TLV (mg/m3): 5.0

Maximum Hourly Emission Rate (lbs/hr): 0.976

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.052

MAGLC (ug/m3): 119

Pollutant: Formaldehyde

TLV (mg/m3): 0.370

Maximum Hourly Emission Rate (lbs/hr): 0.595

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.032

MAGLC (ug/m3): 9

Pollutant: Benzene

TLV (mg/m3): 32.0

Maximum Hourly Emission Rate (lbs/hr): 0.722

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.038

MAGLC (ug/m3): 762

Pollutant: Ammonia

TLV (mg/m3): 17.41

Maximum Hourly Emission Rate (lbs/hr): 8.75

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):2.13

MAGLC (ug/m3): 404

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

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

#### **IV. Reporting Requirements**

None

#### **V. Testing Requirements**

None

#### **VI. Miscellaneous Requirements**

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B003 - 175 mmBtu/hr Wood Fired Boiler # 3 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.	OAC rule 3745-31-05(A)(3)	24.5 pounds nitrogen oxides (NOx) per hour, and 107.4 TPY NOx*; 6.6 pounds sulfur dioxide (SO <sub>2</sub> ) per hour, and 28 TPY SO <sub>2</sub> *; 1.9 pounds carbon monoxide (CO) per hour, and 8.27 TPY CO*; 0.0084 pounds lead (Pb) per hour, and 0.02 TPY Pb* 1.25 pounds ammonia (NH <sub>3</sub> ) per hour, and 5.48 TPY (NH <sub>3</sub> ) 0.67 pound hydrogen chloride (HCL) per hour, and 1.28 TPY HCL*  The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and OAC rule 3745-31-10 through 20, and OAC rule 3745-17-07(A)(1).
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	See section A.I.2.f below.  2.7 pounds volatile organic compounds (VOC) per hour, and 11.8 TPY VOC; 8.14 pounds particulates (PM/PM <sub>10</sub> ) per hour and 21.5 TPY PM/PM <sub>10</sub> *; See section A.I.2.a. below.
	OAC rule 3745-31-05(D)	See section A.I.2.e below.  57.89 TPY CO* from B001 - B007 total

Synthetic Minor to avoid Prevention of Significant Deterioration for CO	
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.
OAC rule 3745-17-10(C)(1)	See section A.I.2.b. below.
OAC rule 3745-18-06(E)(2)	See section A.I.2.b. below.
OAC rule 3745-23-06(B)	See section A.I.2.c. below.
OAC rule 3745-21-08(B)	See section A.I.2.d. below.
	* the TPY mass emission rate limitations are based on a rolling, 12 month summation of the monthly emissions.

**2. Additional Terms and Conditions**

- 2.a** Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.
- 2.b** The requirements of this rule are less stringent than the requirements of OAC rule 3745-31-05(A)(3).
- 2.c** All stationary sources of nitrogen oxide shall minimize nitrogen oxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f below to minimize nitrogen oxide emissions.
- 2.d** All stationary sources of carbon monoxide shall minimize carbon monoxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f below to minimize carbon monoxide emissions.
- 2.e** Compliance with 40 CFR 52.21 and OAC rule 3745-31-(10) through (20) shall be demonstrated by the following Best Available Control Technologies (BACT):
  - PM/PM10 - Use of reverse air baghouse with 98% control efficiency. For this permit, it is assumed that all PM emissions are PM<sub>10</sub>.
  - VOC- Use of good combustion practices in the operation of the boiler and use of an oxidation catalyst.
- 2.f** The permittee shall install and operate the following control technologies as part of the Best Available Technology (BAT) requirements:

NOx - Use of selective catalytic reduction (SCR) with a NOx control efficiency of 80%.

CO- Use of an oxidation catalyst with a CO control efficiency of 95.7%.

SO<sub>2</sub>- Use of sodium bicarbonate (NaHCO<sub>3</sub>) injection with a SO<sub>2</sub> control efficiency of 70%.

**II. Operational Restrictions**

1. These boilers will burn a mixed wood waste fuel consisting of a mixture of Mill's Pride wood waste and sawmill wood waste products. This fuel mixture shall not exceed 32 percent concentration of Mill's Pride wood waste product (the worst case in terms of emissions for any restricted pollutant) on a monthly and an annual basis. This 32 percent mixture equates to a usage rate of 41,714 tons of Mill's Pride wood waste annually, at full-time operation of one boiler.

The maximum annual combined Mill's Pride wood waste usage rate in emissions units B001, B002, B003, B004, B005, B006 and B007 shall not exceed 291,998 tons, based on a rolling, 12-month rolling summation of the usage rates.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Tons of Fuel</u>
1	24333.2
1-2	48666.4
1-3	72999.6
1-4	97332.8
1-5	121666
1-6	145999.2
1-7	170332.4
1-8	194665.6
1-9	218998.8
1-10	243332
1-11	267665.2
1-12	291998

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual combined Mill's Pride wood waste fuel use limitation shall be based upon a rolling, 12 month summation of the fuel.

2. The permittee shall ensure that thorough mixing of the fuel components occurs prior to burning in this emission unit, and that the mixture percentage is maintained at no more than 32 percent Mill's Pride content. This shall be accomplished by means of mixed delivery into the raw wood

storage building with further mixing in the wood handling system, the dryer grinders and as the material is distributed to the boilers.

3. The pressure drop across the baghouse shall be maintained within a range established during the initial compliance test that demonstrates compliance, in inches of water, while the emission unit is in operation.

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

1. The permittee shall maintain monthly records of the following information for B001, B002, B003, B004, B005, B006 and B007:
  - a. The amount of Mill's Pride wood waste used each month, the total amount of fuel used each month and the percent Mill's Pride content.
  - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12 month summation of the amount of Mill's Pride wood waste used.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative amounts of Mill's Pride wood waste and the total fuel used for each calendar month and the percent Mill's Pride content.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation.

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

3. The permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive

maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

5. The permittee shall operate and maintain equipment to continuously monitor and record SO<sub>2</sub> from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous SO<sub>2</sub> monitoring system including, but not limited to, parts per million SO<sub>2</sub> on an instantaneous (one-minute) basis, emissions of SO<sub>2</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO<sub>2</sub> monitoring system designed to ensure continuous valid and representative readings of SO<sub>2</sub>. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous SO<sub>2</sub> monitoring system must be kept on site and available for inspection during regular office hours.
7. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR

Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

9. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

10. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12 month Mill's Pride wood waste usage limitation and exceedances of the 32 % Mill's Pride content limitation; and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative Mill's Pride wood waste usage levels.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The deviation (excursion) reports shall be submitted in accordance with Part 1 - General Terms and Conditions of this permit under section (A)(1).
4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions

unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

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

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration magnitude, reason (if known), and corrective actions taken (if any), of all instances of SO<sub>2</sub> values in excess of the applicable limit(s) specified OAC Chapter 3745-18, the average daily SO<sub>2</sub> emission rates (lb/mmBtu), and the 30-day rolling, weighted average SO<sub>2</sub> emission rates (lb/mmBtu). These reports shall also contain the total SO<sub>2</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous SO<sub>2</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

6. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in 40 CFR Part 76 or any limitations specified in the terms and

conditions of this permit. These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

7. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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

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

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

8.14 pounds PM/PM<sub>10</sub> per hour

2.7 pounds VOC per hour

Applicable Compliance Method:

The following controlled emission factors were used to calculate these emission limits:

Controlled emission factor = 0.739 lb/ton PM/PM<sub>10</sub>

0.22 lb/ton VOC

These emission limits were established by multiplying the emission factor in lb/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- b. Emission Limitation:

1.9 pounds CO per hour

Applicable Compliance Method:

This emissions limit was established by multiplying the heat content of the 0.007937 mmBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- c. Emission Limitation:

24.5 pounds NO<sub>x</sub> per hour

6.6 pounds SO<sub>2</sub> per hour

Applicable Compliance Method:

The NO<sub>x</sub> emissions limit was established by multiplying the heat content of the 0.007937 mmBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

The SO<sub>2</sub> emissions limit was established by multiplying the controlled emission factor of 0.6 lb/ton, times the tons of fuel per hour.

Initial compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Continual compliance with those limitations shall be demonstrated by the use of the CEM in conditions A.III.7 and A.III.9, based upon an hourly averaging period as allowed in 40 CFR Part 60.

d. Emission Limitation:

107.4 TPY NO<sub>x</sub>

8.27 TPY CO

Applicable Compliance Method:

These emission limits were established by multiplying the heat content of the 0.00588 mmBtu/lb of the worst case fuel mixture (32% Mill's Pride and sawmill waste), times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times the tons of fuel per year (maximum of 130,201 TPY total fuel at 32% Mill's Pride content).

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

e. Emission Limitation:

21.5 TPY PM/PM<sub>10</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.33 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of

fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

f. Emission Limitation:

28 TPY SO<sub>2</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.43 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

g. Emission Limitation:

11.8 TPY VOC

Applicable Compliance Method:

These emission limits were established by multiplying the lb/hour allowable emission limit by 8760 hours/year divided by 2000 lb/ton.

Compliance shall be determined by multiplying the lb/hour emissions, based on the results of the most recent performance test which demonstrated compliance, by the actual operating hours per year, divided by 2000 lb/ton.

h. Emission Limitation:

0.0084 pound per hour Pb and 0.02 TPY Pb

Applicable Compliance Method:

Compliance shall be determined by using the emission factor of 0.000048 lb/mmBtu (from AP-42 Fifth ed. 07/01). To calculate the hourly emission rate, multiply the lb/mmBtu emission factor by the maximum hourly heat input of the boiler (mmBtu/hr). If required, the permittee shall demonstrate compliance by emission testing in accordance with US EPA Method 12 of 40 CFR Part 60, Appendix A. Compliance with the annual emission limitation shall be determined using the emission factor of 0.000328 lb/ton (based on mass balance, using average fuel value). Multiply the lb/ton emission factor by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

i. Emission Limitation:

1.25 pounds Ammonia (NH<sub>3</sub>) per hour and 5.48 TPY Ammonia (NH<sub>3</sub>)

Applicable Compliance Method:

Compliance with the lb/hr emission limitation shall be determined by multiplying the emission factor of 0.07 lbs of ammonia/ton (emission factor supplied by permittee, based on mass balance) by the amount of fuel used per hour. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation and dividing by 2000 lb/ton.

j. Emission Limitation:

57.89 TPY CO total from B001 - B007

Applicable Compliance Method:

Compliance shall be determined by multiplying the actual emission for CO (calculated in accordance with section A.V.1.d.) times the total number of boilers.

k. Emission Limitation:

Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the methods and procedures of Method 5 of 40 CFR Part 60, Appendix A.

l. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in OAC rule 3745-17-03(B)(1) determined according to Method 9 of 40 CFR Part 60, Appendix A.

m. Emission Limitation

291,998 tons of Mill's Pride wood waste per rolling 12-month period

Applicable Compliance Method:

As per the recordkeeping required by Section III.1., the monthly usage shall be added to the previous 11 months to determine the rolling 12-month total usage.

n. Emission Limitation:

0.67 pound HCL per hour, and 1.28 TPY HCL

Applicable Compliance Method:

The lbs/hr emissions limit was established by multiplying the emission factor of 0.061 lbs of HCL/ton (emission factor supplied by permittee, based on fuel analysis) by the amount of fuel used per hour.

The TPY emissions limit was established by multiplying the emission factor of 0.00167 lb/mmBtu (based on the a maximum of 32% Mill's Pride fuel), times 175 mmBtu/hr (maximum heat input of the boiler), times 8760 hrs/yr, divided by 2000 lb/ton.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Compliance with the TPY emission limitation shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the

tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

## 2. Emission Testing Requirements

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

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emission unit.
- b. The emission testing shall be conducted to demonstrate compliance with the PM/PM10, SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO emission limits.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 5 of 40 CFR Part 60, Appendix A, for SO<sub>2</sub>, Method 6 of 40 CFR Part 60, Appendix A, for NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A, for CO, Method 10 of 40 CFR Part 60, Appendix A, for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A, for HCL, Method 26 of 40 CFR Part 60, Appendix A, as appropriate. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

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

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

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

3. Continuous Opacity Monitoring - Certified Systems  
Statement of Certification

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

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

4. Continuous SO<sub>2</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous SO<sub>2</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous SO<sub>2</sub> monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous SO<sub>2</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2 and/or 40 CFR Part 75.

5. Continuous NO<sub>x</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days of the effective date of this permit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.

6. Continuous CO Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B003 - 175 mmBtu/hr Wood Fired Boiler # 3 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.		Compliance with OEPA Air Toxics Policy  See section B.III.1. below.

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (B003) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hydrogen Chloride

TLV (mg/m3): 7.5

Maximum Hourly Emission Rate (lbs/hr): 2.17

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.115

MAGLC (ug/m3): 179

Pollutant: Manganese

TLV (mg/m3): 5.0

Maximum Hourly Emission Rate (lbs/hr): 0.976

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.052

MAGLC (ug/m3): 119

Pollutant: Formaldehyde

TLV (mg/m3): 0.370

Maximum Hourly Emission Rate (lbs/hr): 0.595

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.032

MAGLC (ug/m3): 9

Pollutant: Benzene

TLV (mg/m3): 32.0

Maximum Hourly Emission Rate (lbs/hr): 0.722

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.038

MAGLC (ug/m3): 762

Pollutant: Ammonia

TLV (mg/m3): 17.41

Maximum Hourly Emission Rate (lbs/hr): 8.75

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):2.13

MAGLC (ug/m3): 404

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such

parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

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

#### **IV. Reporting Requirements**

None

#### **V. Testing Requirements**

None

#### **VI. Miscellaneous Requirements**

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Biomass Energy, LLC - South Point Power  
PTI Application: **07-00493**  
**Issued: 2/7/2002**

Facility ID: **0744000147**  
Emissions Unit ID: B003

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B004 - 175 mmBtu/hr Wood Fired Boiler # 4 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.	OAC rule 3745-31-05(A)(3)	24.5 pounds nitrogen oxides (NOx) per hour, and 107.4 TPY NOx*; 6.6 pounds sulfur dioxide (SO <sub>2</sub> ) per hour, and 28 TPY SO <sub>2</sub> *; 1.9 pounds carbon monoxide (CO) per hour, and 8.27 TPY CO*; 0.0084 pounds lead (Pb) per hour, and 0.02 TPY Pb* 1.25 pounds ammonia (NH <sub>3</sub> ) per hour, and 5.48 TPY (NH <sub>3</sub> ) 0.67 pound hydrogen chloride (HCL) per hour, and 1.28 TPY HCL*
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and OAC rule 3745-31-10 through 20, and OAC rule 3745-17-07(A)(1).  See section A.I.2.f. below.  2.7 pounds volatile organic compounds (VOC) per hour, and 11.8 TPY VOC; 8.14 pounds particulates (PM/PM <sub>10</sub> ) per hour and 21.5 TPY PM/PM <sub>10</sub> *; See section A.I.2.a. below.
		See section A.I.2.e below.

OAC rule 3745-31-05(D) Synthetic Minor to avoid Prevention of Significant Deterioration for CO	57.89 TPY CO* from B001 - B007 total
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.
OAC rule 3745-17-10(C)(1)	See section A.I.2.b. below.
OAC rule 3745-18-06(E)(2)	See section A.I.2.b. below.
OAC rule 3745-23-06(B)	See section A.I.2.c. below.
OAC rule 3745-21-08(B)	See section A.I.2.d. below.
	* the TPY mass emission rate limitations are based on a rolling, 12 month summation of the monthly emissions.

**2. Additional Terms and Conditions**

- 2.a** Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.
- 2.b** The requirements of this rule are less stringent than the requirements of OAC rule 3745-31-05(A)(3).
- 2.c** All stationary sources of nitrogen oxide shall minimize nitrogen oxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f. below to minimize nitrogen oxide emissions.
- 2.d** All stationary sources of carbon monoxide shall minimize carbon monoxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f. below to minimize carbon monoxide emissions.
- 2.e** Compliance with 40 CFR 52.21 and OAC rule 3745-31-(10) through (20) shall be demonstrated by the following Best Available Control Technologies (BACT):
  - PM/PM10 - Use of reverse air baghouse with 98% control efficiency. For this permit, it is assumed that all PM emissions are PM<sub>10</sub>.
  - VOC- Use of good combustion practices in the operation of the boiler and use of an oxidation catalyst.

**2.f** The permittee shall install and operate the following control technologies as part of the Best Available Technology (BAT) requirements:

NOx - Use of selective catalytic reduction (SCR) with a NOx control efficiency of 80%.

CO- Use of an oxidation catalyst with a CO control efficiency of 95.7%.

SO<sub>2</sub>- Use of sodium bicarbonate (NaHCO<sub>3</sub>) injection with a SO<sub>2</sub> control efficiency of 70%.

**II. Operational Restrictions**

1. These boilers will burn a mixed wood waste fuel consisting of a mixture of Mill's Pride wood waste and sawmill wood waste products. This fuel mixture shall not exceed 32 percent concentration of Mill's Pride wood waste product (the worst case in terms of emissions for any restricted pollutant) on a monthly and an annual basis, This 32 percent mixture equates to a usage rate of 41,714 tons of Mill's Pride wood waste annually, at full-time operation of one boiler.

The maximum annual combined Mill's Pride wood waste usage rate in emissions units B001, B002, B003, B004, B005, B006 and B007 shall not exceed 291,998 tons, based on a rolling, 12-month rolling summation of the usage rates.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Tons of Fuel</u>
1	24333.2
1-2	48666.4
1-3	72999.6
1-4	97332.8
1-5	121666
1-6	145999.2
1-7	170332.4
1-8	194665.6
1-9	218998.8
1-10	243332
1-11	267665.2
1-12	291998

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual combined Mill's Pride wood waste fuel use limitation shall be based upon a rolling, 12 month summation of the fuel.

2. The permittee shall ensure that thorough mixing of the fuel components occurs prior to burning in this emission unit, and that the mixture percentage is maintained at no more than 32 percent Mill's Pride content. This shall be accomplished by means of mixed delivery into the raw wood storage building with further mixing in the wood handling system, the dryer grinders and as the material is distributed to the boilers.
3. The pressure drop across the baghouse shall be maintained within a range established during the initial compliance test that demonstrates compliance, in inches of water, while the emission unit is in operation.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for B001, B002, B003, B004, B005, B006 and B007:
  - a. The amount of Mill's Pride wood waste used each month, the total amount of fuel used each month and the percent Mill's Pride content.
  - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12 month summation of the amount of Mill's Pride wood waste used.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative amounts of Mill's Pride wood waste and the total fuel used for each calendar month and the percent Mill's Pride content.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation.

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

3. The permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure

continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

5. The permittee shall operate and maintain equipment to continuously monitor and record SO<sub>2</sub> from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous SO<sub>2</sub> monitoring system including, but not limited to, parts per million SO<sub>2</sub> on an instantaneous (one-minute) basis, emissions of SO<sub>2</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO<sub>2</sub> monitoring system designed to ensure continuous valid and representative readings of SO<sub>2</sub>. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous SO<sub>2</sub> monitoring system must be kept on site and available for inspection during regular office hours.
7. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.
9. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

10. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12 month Mill's Pride wood waste usage limitation and exceedances of the 32 % Mill's Pride content limitation; and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative Mill's Pride wood waste usage levels.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The deviation (excursion) reports shall be submitted in accordance with Part 1 - General Terms and Conditions of this permit under section (A)(1).
4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

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

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

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration magnitude, reason (if known), and corrective actions taken (if any), of all instances of SO<sub>2</sub> values in excess of the applicable limit(s) specified OAC Chapter 3745-18, the average daily SO<sub>2</sub> emission rates (lb/mmBtu), and the 30-day rolling, weighted average SO<sub>2</sub> emission rates (lb/mmBtu). These reports shall also contain the total SO<sub>2</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous SO<sub>2</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

6. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the

end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in 40 CFR Part 76 or any limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

7. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the

emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

8.14 pounds PM/PM<sub>10</sub> per hour

2.7 pounds VOC per hour

Applicable Compliance Method:

The following controlled emission factors were used to calculate these emission limits:

Controlled emission factor = 0.739 lb/ton PM/PM<sub>10</sub>

0.22 lb/ton VOC

These emission limits were established by multiplying the emission factor in lb/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- b. Emission Limitation:

1.9 pounds CO per hour

Applicable Compliance Method:

This emissions limit was established by multiplying the heat content of the 0.007937 mmBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation ( lb/mmBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- c. Emission Limitation:

24.5 pounds NO<sub>x</sub> per hour

6.6 pounds SO<sub>2</sub> per hour

Applicable Compliance Method:

The NO<sub>x</sub> emissions limit was established by multiplying the heat content of the 0.007937 mmBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

The SO<sub>2</sub> emissions limit was established by multiplying the controlled emission factor of 0.6 lb/ton, times the tons of fuel per hour.

Initial compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Continual compliance with those limitations shall be demonstrated by the use of the CEM in conditions A.III.7 and A.III.9, based upon an hourly averaging period as allowed in 40 CFR Part 60.

d. Emission Limitation:

107.4 TPY NO<sub>x</sub>

8.27 TPY CO

Applicable Compliance Method:

These emission limits were established by multiplying the heat content of the 0.00588 mmBtu/lb of the worst case fuel mixture (32% Mill's Pride and sawmill waste), times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times the tons of fuel per year (maximum of 130,201 TPY total fuel at 32% Mill's Pride content).

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

e. Emission Limitation:

21.5 TPY PM/PM<sub>10</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.33 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

f. Emission Limitation:

28 TPY SO<sub>2</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.43 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

g. Emission Limitation:

11.8 TPY VOC

Applicable Compliance Method:

These emission limits were established by multiplying the lb/hour allowable emission limit by 8760 hours/year divided by 2000 lb/ton.

Compliance shall be determined by multiplying the lb/hour emissions, based on the results of the most recent performance test which demonstrated compliance, by the actual operating hours per year, divided by 2000 lb/ton.

h. Emission Limitation:

0.0084 pound per hour Pb and 0.02 TPY Pb

Applicable Compliance Method:

Compliance shall be determined by using the emission factor of 0.000048 lb/mmBtu (from AP-42 Fifth ed. 07/01). To calculate the hourly emission rate, multiply the

lb/mmBtu emission factor by the maximum hourly heat input of the boiler (mmBtu/hr). If required, the permittee shall demonstrate compliance by emission testing in accordance with US EPA Method 12 of 40 CFR Part 60, Appendix A. Compliance with the annual emission limitation shall be determined using the emission factor of 0.000328 lb/ton (based on mass balance, using average fuel value). Multiply the lb/ton emission factor by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

i. Emission Limitation:

1.25 pounds Ammonia (NH<sub>3</sub>) per hour and 5.48 TPY Ammonia (NH<sub>3</sub>)

Applicable Compliance Method:

Compliance with the lb/hr emission limitation shall be determined by multiplying the emission factor of 0.07 lbs of ammonia/ton (emission factor supplied by permittee, based on mass balance) by the amount of fuel used per hour. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation and dividing by 2000 lb/ton.

j. Emission Limitation:

57.89 TPY CO total from B001-B007

Applicable Compliance Method:

Compliance shall be determined by multiplying the actual emission for CO (calculated in accordance with section A.V.1.d.) times the total number of boilers.

k. Emission Limitation:

Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the methods and procedures of Method 5 of 40 CFR Part 60, Appendix A.

l. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in OAC rule 3745-17-03(B)(1) determined according to Method 9 of 40 CFR Part 60, Appendix A.

m. Emission Limitation

291,998 tons of Mill's Pride wood waste per rolling 12-month period

Applicable Compliance Method:

As per the recordkeeping required by Section III.1., the monthly usage shall be added to the previous 11 months to determine the rolling 12-month total usage.

n. Emission Limitation:

0.67 pound HCL per hour, and 1.28 TPY HCL

Applicable Compliance Method:

The lbs/hr emissions limit was established by multiplying the emission factor of 0.061 lbs of HCL/ton (emission factor supplied by permittee, based on fuel analysis) by the amount of fuel used per hour.

The TPY emissions limit was established by multiplying the emission factor of 0.00167 lb/mmBtu (based on the a maximum of 32% Mill's Pride fuel), times 175 mmBtu/hr ( maximum heat input of the boiler) , times 8760 hrs/yr, divided by 2000 lb/ton.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee

shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Compliance with the TPY emission limitation shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

## 2. Emission Testing Requirements

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

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emission unit.
- b. The emission testing shall be conducted to demonstrate compliance with the PM/PM10, SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO emission limits.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 5 of 40 CFR Part 60, Appendix A, for SO<sub>2</sub>, Method 6 of 40 CFR Part 60, Appendix A, for NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A, for CO, Method 10 of 40 CFR Part 60, Appendix A, for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A, for HCL, Method 26 of 40 CFR Part 60, Appendix A, as appropriate. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

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

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

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

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

3. Continuous Opacity Monitoring - Certified Systems  
Statement of Certification

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

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

4. Continuous SO<sub>2</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous SO<sub>2</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous SO<sub>2</sub> monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous SO<sub>2</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2 and/or 40 CFR Part 75.

5. Continuous NO<sub>x</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days of the effective date of this permit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.

6. Continuous CO Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B004 - 175 mmBtu/hr Wood Fired Boiler # 4 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.		Compliance with OEPA Air Toxics Policy  See section B.III.1. below.

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (B004) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hydrogen Chloride

TLV (mg/m3): 7.5

Maximum Hourly Emission Rate (lbs/hr): 2.17

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.115

MAGLC (ug/m3): 179

Pollutant: Manganese

TLV (mg/m3): 5.0

Maximum Hourly Emission Rate (lbs/hr): 0.976

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.052

MAGLC (ug/m3): 119

Pollutant: Formaldehyde

TLV (mg/m3): 0.370

Maximum Hourly Emission Rate (lbs/hr): 0.595

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.032

MAGLC (ug/m3): 9

Pollutant: Benzene

TLV (mg/m3): 32.0

Maximum Hourly Emission Rate (lbs/hr): 0.722

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.038

MAGLC (ug/m3): 762

Pollutant: Ammonia

TLV (mg/m3): 17.41

Maximum Hourly Emission Rate (lbs/hr): 8.75

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):2.13

MAGLC (ug/m3): 404

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such

parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

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

#### **IV. Reporting Requirements**

None

#### **V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B005 - 175 mmBtu/hr Wood Fired Boiler # 5 with baghouses, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.	OAC rule 3745-31-05(A)(3)	24.5 pounds nitrogen oxides (NOx) per hour, and 107.4 TPY NOx*; 6.6 pounds sulfur dioxide (SO <sub>2</sub> ) per hour, and 28 TPY SO <sub>2</sub> *; 1.9 pounds carbon monoxide (CO) per hour, and 8.27 TPY CO*; 0.0084 pound lead (Pb) per hour, and 0.02 TPY Pb* 1.25 pounds ammonia (NH <sub>3</sub> ) per hour, and 5.48 TPY (NH <sub>3</sub> ) 0.67 pound hydrogen chloride (HCL) per hour, and 1.277 TPY HCL*
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and OAC rule 3745-31-10 through 20, and OAC rule 3745-17-07(A)(1).  See section A.I.2.f below.
		2.7 pounds volatile organic compounds (VOC) per hour, and 11.8 TPY VOC; 8.14 pounds particulates (PM/PM <sub>10</sub> ) per hour and 21.5 TPY PM/PM <sub>10</sub> *; See section A.I.2.a. below.
		See section A.I.2.e below.
	OAC rule 3745-31-05(D)	57.89 TPY CO* from B001 - B007 total

Synthetic Minor to avoid Prevention of Significant Deterioration for CO	
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.
OAC rule 3745-17-10(C)(1)	See section A.I.2.b. below.
OAC rule 3745-18-06(E)(2)	See section A.I.2.b. below.
OAC rule 3745-23-06(B)	See section A.I.2.c. below.
OAC rule 3745-21-08(B)	See section A.I.2.d. below.
	* the TPY mass emission rate limitations are based on a rolling, 12 month summation of the monthly emissions.

**2. Additional Terms and Conditions**

- 2.a** Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.
- 2.b** The requirements of this rule are less stringent than the requirements of OAC rule 3745-31-05(A)(3).
- 2.c** All stationary sources of nitrogen oxide shall minimize nitrogen oxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f below to minimize nitrogen oxide emissions.
- 2.d** All stationary sources of carbon monoxide shall minimize carbon monoxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f below to minimize carbon monoxide emissions.
- 2.e** Compliance with 40 CFR 52.21 and OAC rule 3745-31-(10) through (20) shall be demonstrated by the following Best Available Control Technologies (BACT):
  - PM/PM10 - Use of reverse air baghouse with 98% control efficiency. For this permit, it is assumed that all PM emissions are PM<sub>10</sub>.
  - VOC- Use of good combustion practices in the operation of the boiler and use of an oxidation catalyst.
- 2.f** The permittee shall install and operate the following control technologies as part of the Best Available Technology (BAT) requirements:

NOx - Use of selective catalytic reduction (SCR) with a NOx control efficiency of 80%.

CO- Use of an oxidation catalyst with a CO control efficiency of 95.7%.

SO<sub>2</sub>- Use of sodium bicarbonate (NaHCO<sub>3</sub>) injection with a SO<sub>2</sub> control efficiency of 70%.

**II. Operational Restrictions**

1. These boilers will burn a mixed wood waste fuel consisting of a mixture of Mill's Pride wood waste and sawmill wood waste products. This fuel mixture shall not exceed 32 percent concentration of Mill's Pride wood waste product (the worst case in terms of emissions for any restricted pollutant) on a monthly and an annual basis, This 32 percent mixture equates to a usage rate of 41,714 tons of Mill's Pride wood waste annually, at full-time operation of one boiler.

The maximum annual combined Mill's Pride wood waste usage rate in emissions units B001, B002, B003, B004, B005, B006 and B007 shall not exceed 291,998 tons, based on a rolling, 12-month rolling summation of the usage rates.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Tons of Fuel</u>
1	24333.2
1-2	48666.4
1-3	72999.6
1-4	97332.8
1-5	121666
1-6	145999.2
1-7	170332.4
1-8	194665.6
1-9	218998.8
1-10	243332
1-11	267665.2
1-12	291998

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual combined Mill's Pride wood waste fuel use limitation shall be based upon a rolling, 12 month summation of the fuel.

2. The permittee shall ensure that thorough mixing of the fuel components occurs prior to burning in this emission unit, and that the mixture percentage is maintained at no more than 32 percent Mill's Pride content. This shall be accomplished by means of mixed delivery into the raw wood

storage building with further mixing in the wood handling system, the dryer grinders and as the material is distributed to the boilers.

3. The pressure drop across the baghouse shall be maintained within a range established during the initial compliance test that demonstrates compliance, in inches of water, while the emission unit is in operation.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for B001, B002, B003, B004, B005, B006 and B007:
  - a. The amount of Mill's Pride wood waste used each month, the total amount of fuel used each month and the percent Mill's Pride content.
  - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12 month summation of the amount of Mill's Pride wood waste used.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative amounts of Mill's Pride wood waste and the total fuel used for each calendar month and the percent Mill's Pride content.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation.

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

3. The permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive

maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

5. The permittee shall operate and maintain equipment to continuously monitor and record SO<sub>2</sub> from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous SO<sub>2</sub> monitoring system including, but not limited to, parts per million SO<sub>2</sub> on an instantaneous (one-minute) basis, emissions of SO<sub>2</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO<sub>2</sub> monitoring system designed to ensure continuous valid and representative readings of SO<sub>2</sub>. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous SO<sub>2</sub> monitoring system must be kept on site and available for inspection during regular office hours.
7. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR

Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

9. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

10. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12 month Mill's Pride wood waste usage limitation and exceedances of the 32 % Mill's Pride content limitation; and for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative Mill's Pride wood waste usage levels.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The deviation (excursion) reports shall be submitted in accordance with Part 1 - General Terms and Conditions of this permit under section (A)(1).
4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions

unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

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

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration magnitude, reason (if known), and corrective actions taken (if any), of all instances of SO<sub>2</sub> values in excess of the applicable limit(s) specified OAC Chapter 3745-18, the average daily SO<sub>2</sub> emission rates (lb/mmBtu), and the 30-day rolling, weighted average SO<sub>2</sub> emission rates (lb/mmBtu). These reports shall also contain the total SO<sub>2</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous SO<sub>2</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

6. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in 40 CFR Part 76 or any limitations specified in the terms and

conditions of this permit. These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

7. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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

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

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

8.14 pounds PM/PM<sub>10</sub> per hour

2.7 pounds VOC per hour

Applicable Compliance Method:

The following controlled emission factors were used to calculate these emission limits:

Controlled emission factor = 0.739 lb/ton PM/PM<sub>10</sub>

0.22 lb/ton VOC

These emission limits were established by multiplying the emission factor in lb/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- b. Emission Limitation:

1.9 pounds CO per hour

Applicable Compliance Method:

This emissions limit was established by multiplying the heat content of the 0.007937 mmBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- c. Emission Limitation:

24.5 pounds NO<sub>x</sub> per hour

6.6 pounds SO<sub>2</sub> per hour

Applicable Compliance Method:

The NO<sub>x</sub> emissions limit was established by multiplying the heat content of the 0.007937 mmBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

The SO<sub>2</sub> emissions limit was established by multiplying the controlled emission factor of 0.6 lb/ton, times the tons of fuel per hour.

Initial compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Continual compliance with those limitations shall be demonstrated by the use of the CEM in conditions A.III.7 and A.III.9, based upon an hourly averaging period as allowed in 40 CFR Part 60.

d. Emission Limitation:

107.4 TPY NO<sub>x</sub>  
8.27 TPY CO

Applicable Compliance Method:

These emission limits were established by multiplying the heat content of the 0.00588 mmBtu/lb of the worst case fuel mixture (32% Mill's Pride and sawmill waste), times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times the tons of fuel per year (maximum of 130,201 TPY total fuel at 32% Mill's Pride content).

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

e. Emission Limitation:

21.5 TPY PM/PM<sub>10</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.33 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of

fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

f. Emission Limitation:

28 TPY SO<sub>2</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.43 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

g. Emission Limitation:

11.8 TPY VOC

Applicable Compliance Method:

These emission limits were established by multiplying the lb/hour allowable emission limit by 8760 hours/year divided by 2000 lb/ton.

Compliance shall be determined by multiplying the lb/hour emissions, based on the results of the most recent performance test which demonstrated compliance, by the actual operating hours per year, divided by 2000 lb/ton.

h. Emission Limitation:

0.0084 pound per hour Pb and 0.02 TPY Pb

Applicable Compliance Method:

Compliance shall be determined by using the emission factor of 0.000048 lb/mmBtu (from AP-42 Fifth ed. 07/01). To calculate the hourly emission rate, multiply the lb/mmBtu emission factor by the maximum hourly heat input of the boiler (mmBtu/hr). If required, the permittee shall demonstrate compliance by emission testing in accordance with US EPA Method 12 of 40 CFR Part 60, Appendix A. Compliance with the annual emission limitation shall be determined using the emission factor of 0.000328 lb/ton (based on mass balance, using average fuel value). Multiply the lb/ton emission factor by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

i. Emission Limitation:

1.25 pounds Ammonia (NH<sub>3</sub>) per hour and 5.48 TPY Ammonia (NH<sub>3</sub>)

Applicable Compliance Method:

Compliance with the lb/hr emission limitation shall be determined by multiplying the emission factor of 0.07 lbs of ammonia/ton (emission factor supplied by permittee, based on mass balance) by the amount of fuel used per hour. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation and dividing by 2000 lb/ton.

j. Emission Limitation:

57.89 TPY CO total from B001 - B007

Applicable Compliance Method:

Compliance shall be determined by multiplying the actual emission for CO (calculated in accordance with section A.V.1.d.) times the total number of boilers.

k. Emission Limitation:

Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the methods and procedures of Method 5 of 40 CFR Part 60, Appendix A.

l. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in OAC rule 3745-17-03(B)(1) determined according to Method 9 of 40 CFR Part 60, Appendix A.

m. Emission Limitation

291,998 tons of Mill's Pride wood waste per rolling 12-month period

Applicable Compliance Method:

As per the recordkeeping required by Section III.1., the monthly usage shall be added to the previous 11 months to determine the rolling 12-month total usage.

n. Emission Limitation:

0.67 pound HCL per hour, and 1.28 TPY HCL

Applicable Compliance Method:

The lbs/hr emissions limit was established by multiplying the emission factor of 0.061 lbs of HCL/ton (emission factor supplied by permittee, based on fuel analysis) by the amount of fuel used per hour.

The TPY emissions limit was established by multiplying the emission factor of 0.00167 lb/mmBtu (based on the a maximum of 32% Mill's Pride fuel), times 175 mmBtu/hr ( maximum heat input of the boiler) , times 8760 hrs/yr, divided by 2000 lb/ton.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Compliance with the TPY emission limitation shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

2. Emission Testing Requirements

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

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emission unit.
- b. The emission testing shall be conducted to demonstrate compliance with the PM/PM10, SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO emission limits.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 5 of 40 CFR Part 60, Appendix A, for SO<sub>2</sub>, Method 6 of 40 CFR Part 60, Appendix A, for NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A, for CO, Method 10 of 40 CFR Part 60, Appendix A, for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A, for HCL, Method 26 of 40 CFR Part 60, Appendix A, as appropriate Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

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

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

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

3. Continuous Opacity Monitoring - Certified Systems  
Statement of Certification

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

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

4. Continuous SO<sub>2</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous SO<sub>2</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous SO<sub>2</sub> monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous SO<sub>2</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2 and/or 40 CFR Part 75.

5. Continuous NO<sub>x</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days of the effective date of this permit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.

6. Continuous CO Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B005 - 175 mmBtu/hr Wood Fired Boiler # 5 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.		Compliance with OEPA Air Toxics Policy  See section B.III.1. below.

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (B005) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hydrogen Chloride

TLV (mg/m3): 7.5

Maximum Hourly Emission Rate (lbs/hr): 2.17

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.115

MAGLC (ug/m3): 179

Pollutant: Manganese

TLV (mg/m3): 5.0

Maximum Hourly Emission Rate (lbs/hr): 0.976

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.052

MAGLC (ug/m3): 119

Pollutant: Formaldehyde

TLV (mg/m3): 0.370

Maximum Hourly Emission Rate (lbs/hr): 0.595

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.032

MAGLC (ug/m3): 9

Pollutant: Benzene

TLV (mg/m3): 32.0

Maximum Hourly Emission Rate (lbs/hr): 0.722

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.038

MAGLC (ug/m3): 762

Pollutant: Ammonia

TLV (mg/m3): 17.41

Maximum Hourly Emission Rate (lbs/hr): 8.75

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):2.13

MAGLC (ug/m3): 404

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic

Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

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

#### **IV. Reporting Requirements**

None

#### **V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B006 - 175 mmBtu/hr Wood Fired Boiler # 6 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.	OAC rule 3745-31-05(A)(3)	24.5 pounds nitrogen oxides (NOx) per hour, and 107.4 TPY NOx*; 6.6 pounds sulfur dioxide (SO <sub>2</sub> ) per hour, and 28 TPY SO <sub>2</sub> *; 1.9 pounds carbon monoxide (CO) per hour, and 8.27 TPY CO*; 0.0084 pound Pb per hour, and 0.02 TPY Pb* 1.25 pounds ammonia (NH <sub>3</sub> ) per hour, and 5.48 TPY (NH <sub>3</sub> ) 0.67 pound hydrogen chloride (HCL) per hour, and 1.28 TPY HCL*
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and OAC rule 3745-31-10 through 20, and OAC rule 3745-17-07(A)(1).  See section A.I.2.f below.
	OAC rule 3745-31-05(D)	2.7 pounds volatile organic compounds (VOC) per hour, and 11.8 TPY VOC; 8.14 pounds particulates (PM/PM <sub>10</sub> ) per hour and 21.5 TPY PM/PM <sub>10</sub> *; See section A.I.2.a. below.  See section A.I.2.e below.  57.89 TPY CO* from B001 - B007 total

Synthetic Minor to avoid Prevention of Significant Deterioration for CO	
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.
OAC rule 3745-17-10(C)(1)	See section A.I.2.b. below.
OAC rule 3745-18-06(E)(2)	See section A.I.2.b. below.
OAC rule 3745-23-06(B)	See section A.I.2.c. below.
OAC rule 3745-21-08(B)	See section A.I.2.d. below.
	* the TPY mass emission rate limitations are based on a rolling, 12 month summation of the monthly emissions.

**2. Additional Terms and Conditions**

- 2.a** Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.
- 2.b** The requirements of this rule are less stringent than the requirements of OAC rule 3745-31-05(A)(3).
- 2.c** All stationary sources of nitrogen oxide shall minimize nitrogen oxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f below to minimize nitrogen oxide emissions.
- 2.d** All stationary sources of carbon monoxide shall minimize carbon monoxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f below to minimize carbon monoxide emissions.
- 2.e** Compliance with 40 CFR 52.21 and OAC rule 3745-31-(10) through (20) shall be demonstrated by the following Best Available Control Technologies (BACT):
  - PM/PM10 - Use of reverse air baghouse with 98% control efficiency. For this permit, it is assumed that all PM emissions are PM<sub>10</sub>.
  - VOC- Use of good combustion practices in the operation of the boiler and use of an oxidation catalyst.
- 2.f** The permittee shall install and operate the following control technologies as part of the Best Available Technology (BAT) requirements:

NOx - Use of selective catalytic reduction (SCR) with a NOx control efficiency of 80%.

CO- Use of an oxidation catalyst with a CO control efficiency of 95.7%.

SO<sub>2</sub>- Use of sodium bicarbonate (NaHCO<sub>3</sub>) injection with a SO<sub>2</sub> control efficiency of 70%.

## II. Operational Restrictions

1. These boilers will burn a mixed wood waste fuel consisting of a mixture of Mill's Pride wood waste and sawmill wood waste products. This fuel mixture shall not exceed 32 percent concentration of Mill's Pride wood waste product (the worst case in terms of emissions for any restricted pollutant) on a monthly and an annual basis. This 32 percent mixture equates to a usage rate of 41,714 tons of Mill's Pride wood waste annually, at full-time operation of one boiler.

The maximum annual combined Mill's Pride wood waste usage rate in emissions units B001, B002, B003, B004, B005, B006 and B007 shall not exceed 291,998 tons, based on a rolling, 12-month rolling summation of the usage rates.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Tons of Fuel</u>
1	24333.2
1-2	48666.4
1-3	72999.6
1-4	97332.8
1-5	121666
1-6	145999.2
1-7	170332.4
1-8	194665.6
1-9	218998.8
1-10	243332
1-11	267665.2
1-12	291998

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual combined Mill's Pride wood waste fuel use limitation shall be based upon a rolling, 12 month summation of the fuel.

2. The permittee shall ensure that thorough mixing of the fuel components occurs prior to burning in this emission unit, and that the mixture percentage is maintained at no more than 32 percent Mill's Pride content. This shall be accomplished by means of mixed delivery into the raw wood

storage building with further mixing in the wood handling system, the dryer grinders and as the material is distributed to the boilers.

3. The pressure drop across the baghouse shall be maintained within a range established during the initial compliance test that demonstrated compliance, in inches of water, while the emission unit is in operation.

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

1. The permittee shall maintain monthly records of the following information for B001, B002, B003, B004, B005, B006 and B007:
  - a. The amount of Mill's Pride wood waste used each month, the total amount of fuel used each month and the percent Mill's Pride content.
  - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12 month summation of the amount of Mill's Pride wood waste used.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative amounts of Mill's Pride wood waste and the total fuel used for each calendar month and the percent Mill's Pride content.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation.

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

3. The permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive

maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

5. The permittee shall operate and maintain equipment to continuously monitor and record SO<sub>2</sub> from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous SO<sub>2</sub> monitoring system including, but not limited to, parts per million SO<sub>2</sub> on an instantaneous (one-minute) basis, emissions of SO<sub>2</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO<sub>2</sub> monitoring system designed to ensure continuous valid and representative readings of SO<sub>2</sub>. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous SO<sub>2</sub> monitoring system must be kept on site and available for inspection during regular office hours.
7. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR

Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

9. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

10. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12 month Mill's Pride wood waste usage limitation and exceedances of the 32 % Mill's Pride content limitation; for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative Mill's Pride wood waste usage levels.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The deviation (excursion) reports shall be submitted in accordance with Part 1 - General Terms and Conditions of this permit under section (A)(1).
4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions

unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

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

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration magnitude, reason (if known), and corrective actions taken (if any), of all instances of SO<sub>2</sub> values in excess of the applicable limit(s) specified OAC Chapter 3745-18, the average daily SO<sub>2</sub> emission rates (lb/mmBtu), and the 30-day rolling, weighted average SO<sub>2</sub> emission rates (lb/mmBtu). These reports shall also contain the total SO<sub>2</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous SO<sub>2</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

6. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in 40 CFR Part 76 or any limitations specified in the terms and

conditions of this permit. These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

7. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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

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

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

8.14 pounds PM/PM<sub>10</sub> per hour  
2.7 pounds VOC per hour

Applicable Compliance Method:

The following controlled emission factors were used to calculate these emission limits:

Controlled emission factor = 0.739 lb/ton PM/PM<sub>10</sub>  
0.22 lb/ton VOC

These emission limits were established by multiplying the emission factor in lb/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- b. Emission Limitation:

1.9 pounds CO per hour

Applicable Compliance Method:

This emissions limit was established by multiplying the heat content of the 0.007937 mmBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- c. Emission Limitation:

24.5 pounds NO<sub>x</sub> per hour  
6.6 pounds SO<sub>2</sub> per hour

Applicable Compliance Method:

The NO<sub>x</sub> emissions limit was established by multiplying the heat content of the 0.007937 mmBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

The SO<sub>2</sub> emissions limit was established by multiplying the controlled emission factor of 0.6 lb/ton, times the tons of fuel per hour.

Initial compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Continual compliance with those limitations shall be demonstrated by the use of the CEM in conditions A.III.7 and A.III.9, based upon an hourly averaging period as allowed in 40 CFR Part 60.

d. Emission Limitation:

107.4 TPY NO<sub>x</sub>  
8.27 TPY CO

Applicable Compliance Method:

These emission limits were established by multiplying the heat content of the 0.00588 mmBtu/lb of the worst case fuel mixture (32% Mill's Pride and sawmill waste), times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times the tons of fuel per year (maximum of 130,201 TPY total fuel at 32% Mill's Pride content).

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

e. Emission Limitation:

21.5 TPY PM/PM<sub>10</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.33 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of

fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

f. Emission Limitation:

28 TPY SO<sub>2</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.43 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

g. Emission Limitation:

11.8 TPY VOC

Applicable Compliance Method:

These emission limits were established by multiplying the lb/hour allowable emission limit by 8760 hours/year divided by 2000 lb/ton.

Compliance shall be determined by multiplying the lb/hour emissions, based on the results of the most recent performance test which demonstrated compliance, by the actual operating hours per year, divided by 2000 lb/ton.

h. Emission Limitation:

0.0084 pounds per hour Pb and 0.02 TPY Pb

Applicable Compliance Method:

Compliance shall be determined by using the emission factor of 0.000048 lb/mmBtu (from AP-42 Fifth ed. 07/01). To calculate the hourly emission rate, multiply the lb/mmBtu emission factor by the maximum hourly heat input of the boiler (mmBtu/hr). If required, the permittee shall demonstrate compliance by emission testing in accordance with US EPA Method 12 of 40 CFR Part 60, Appendix A. Compliance with the annual emission limitation shall be determined using the emission factor of 0.000328 lb/ton (based on mass balance, using average fuel value). Multiply the lb/ton emission factor by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

i. Emission Limitation:

1.25 pounds Ammonia (NH<sub>3</sub>) per hour and 5.48 TPY Ammonia (NH<sub>3</sub>)

Applicable Compliance Method:

Compliance with the lb/hr emission limitation shall be determined by multiplying the emission factor of 0.07 lbs of ammonia/ton (emission factor supplied by permittee, based on mass balance) by the amount of fuel used per hour. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation and dividing by 2000 lb/ton.

j. Emission Limitation:

57.89 TPY CO total from B001 - B007

Applicable Compliance Method:

Compliance shall be determined by multiplying the actual emission for CO (calculated in accordance with section A.V.1.d.) times the total number of boilers.

k. Emission Limitation:

Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the methods and procedures of Method 5 of 40 CFR Part 60, Appendix A.

l. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in OAC rule 3745-17-03(B)(1) determined according to Method 9 of 40 CFR Part 60, Appendix A.

m. Emission Limitation

291,998 tons of Mill's Pride wood waste per rolling 12-month period

Applicable Compliance Method:

As per the recordkeeping required by Section III.1., the monthly usage shall be added to the previous 11 months to determine the rolling 12-month total usage.

n. Emission Limitation:

0.67 pound HCL per hour, and 1.28 TPY HCL

Applicable Compliance Method:

The lbs/hr emissions limit was established by multiplying the emission factor of 0.061 lbs of HCL/ton (emission factor supplied by permittee, based on fuel analysis) by the amount of fuel used per hour.

The TPY emissions limit was established by multiplying the emission factor of 0.00167 lb/mmBtu (based on the a maximum of 32% Mill's Pride fuel), times 175 mmBtu/hr ( maximum heat input of the boiler) , times 8760 hrs/yr, divided by 2000 lb/ton.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Compliance with the TPY emission limitation shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the

tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

## 2. Emission Testing Requirements

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

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emission unit.
- b. The emission testing shall be conducted to demonstrate compliance with the PM/PM10, SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO emission limits.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 5 of 40 CFR Part 60, Appendix A, for SO<sub>2</sub>, Method 6 of 40 CFR Part 60, Appendix A, for NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A, for CO, Method 10 of 40 CFR Part 60, Appendix A, for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A, for HCL, Method 26 of 40 CFR Part 60, Appendix A, as appropriate Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

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

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

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

3. Continuous Opacity Monitoring - Certified Systems  
Statement of Certification

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

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

4. Continuous SO<sub>2</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous SO<sub>2</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous SO<sub>2</sub> monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous SO<sub>2</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2 and/or 40 CFR Part 75.

5. Continuous NO<sub>x</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days of the effective date of this permit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.

6. Continuous CO Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B006 - 175 mmBtu/hr Wood Fired Boiler # 6 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.		Compliance with OEPA Air Toxics Policy  See section B.III.1. below.

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (B006) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hydrogen Chloride

TLV (mg/m3): 7.5

Maximum Hourly Emission Rate (lbs/hr): 2.17

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.115

MAGLC (ug/m3): 179

Pollutant: Manganese

TLV (mg/m3): 5.0

Maximum Hourly Emission Rate (lbs/hr): 0.976

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.052

MAGLC (ug/m3): 119

Pollutant: Formaldehyde

TLV (mg/m3): 0.370

Maximum Hourly Emission Rate (lbs/hr): 0.595

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.032

MAGLC (ug/m3): 9

Pollutant: Benzene

TLV (mg/m3): 32.0

Maximum Hourly Emission Rate (lbs/hr): 0.722

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.038

MAGLC (ug/m3): 762

Pollutant: Ammonia

TLV (mg/m3): 17.41

Maximum Hourly Emission Rate (lbs/hr): 8.75

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):2.13

MAGLC (ug/m3): 404

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic

Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

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

#### **IV. Reporting Requirements**

None

#### **V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B007 - 175 mmBtu/hr Wood Fired Boiler # 7 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.	OAC rule 3745-31-05(A)(3)	24.5 pounds nitrogen oxides (NOx)per hour, and 107.4 TPY NOx*; 6.6 pounds sulfur dioxide (SO <sub>2</sub> ) per hour, and 28 TPY SO <sub>2</sub> *; 1.9 pounds carbon monoxide (CO) per hour, and 8.27 TPY CO*; 0.0084 pound Pb per hour, and 0.02 TPY Pb* 1.25 pounds ammonia (NH <sub>3</sub> ) per hour, and 5.48 TPY (NH <sub>3</sub> ) 0.67 pound hydrogen chloride (HCL) per hour, and 1.28 TPY HCL*  The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and OAC rule 3745-31-10 through 20, and OAC rule 3745-17-07(A)(1).
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	See section A.I.2.f below.  2.7 pounds volatile organic compounds (VOC) per hour, and 11.8 TPY VOC; 8.14 pounds particulates (PM/PM <sub>10</sub> ) per hour and 21.5 TPY PM/PM <sub>10</sub> *; See section A.I.2.a. below.
	OAC rule 3745-31-05(D) Synthetic Minor to avoid Prevention	See section A.I.2.e below.  57.89 TPY CO* from B001 - B007 total

of Significant Deterioration for CO.	
OAC rule 3745-17-07(A)(1)	Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.
OAC rule 3745-17-10(C)(1)	See section A.I.2.b. below.
OAC rule 3745-18-06(E)(2)	See section A.I.2.b. below.
OAC rule 3745-23-06(B)	See section A.I.2.c. below.
OAC rule 3745-21-08(B)	See section A.I.2.d. below.
	* the TPY mass emission rate limitations are based on a rolling, 12 month summation of the monthly emissions.

## 2. Additional Terms and Conditions

- 2.a** Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.
- 2.b** The requirements of this rule are less stringent than the requirements of OAC rule 3745-31-05(A)(3).
- 2.c** All stationary sources of nitrogen oxide shall minimize nitrogen oxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f below to minimize nitrogen oxide emissions.
- 2.d** All stationary sources of carbon monoxide shall minimize carbon monoxide emissions by use of the latest available control techniques and operating practices in accordance with best current technology. The permittee shall employ the best available technologies described in term and condition A.I.2.f below to minimize carbon monoxide emissions.
- 2.e** Compliance with 40 CFR 52.21 and OAC rule 3745-31-(10) through (20) shall be demonstrated by the following Best Available Control Technologies (BACT):
- PM/PM10 - Use of reverse air baghouse with 98% control efficiency. For this permit, it is assumed that all PM emissions are PM<sub>10</sub>.
- VOC- Use of good combustion practices in the operation of the boiler and use of an oxidation catalyst.
- 2.f** The permittee shall install and operate the following control technologies as part of the Best Available Technology (BAT) requirements:

NOx - Use of selective catalytic reduction (SCR) with a NOx control efficiency of 80%.

CO- Use of an oxidation catalyst with a CO control efficiency of 95.7%.

SO<sub>2</sub>- Use of sodium bicarbonate (NaHCO<sub>3</sub>) injection with a SO<sub>2</sub> control efficiency of 70%.

## II. Operational Restrictions

1. These boilers will burn a mixed wood waste fuel consisting of a mixture of Mill's Pride wood waste and sawmill wood waste products. This fuel mixture shall not exceed 32 percent concentration of Mill's Pride wood waste product (the worst case in terms of emissions for any restricted pollutant) on a monthly and an annual basis, This 32 percent mixture equates to a usage rate of 41,714 tons of Mill's Pride wood waste annually, at full-time operation of one boiler.

The maximum annual combined Mill's Pride wood waste usage rate in emissions units B001, B002, B003, B004, B005, B006 and B007 shall not exceed 291,998 tons, based on a rolling, 12-month rolling summation of the usage rates.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Tons of Fuel</u>
1	24333.2
1-2	48666.4
1-3	72999.6
1-4	97332.8
1-5	121666
1-6	145999.2
1-7	170332.4
1-8	194665.6
1-9	218998.8
1-10	243332
1-11	267665.2
1-12	291998

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual combined Mill's Pride wood waste fuel use limitation shall be based upon a rolling, 12 month summation of the fuel.

2. The permittee shall ensure that thorough mixing of the fuel components occurs prior to burning in this emission unit, and that the mixture percentage is maintained at no more than 32 percent Mill's Pride content. This shall be accomplished by means of mixed delivery into the raw wood

storage building with further mixing in the wood handling system, the dryer grinders and as the material is distributed to the boilers.

3. The pressure drop across the baghouse shall be maintained within a range established during the initial compliance test that demonstrated compliance, in inches of water, while the emission unit is in operation.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information for B001, B002, B003, B004, B005, B006 and B007:
  - a. The amount of Mill's Pride wood waste used each month, the total amount of fuel used each month and the percent Mill's Pride content.
  - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12 month summation of the amount of Mill's Pride wood waste used.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative amounts of Mill's Pride wood waste and the total fuel used for each calendar month and the percent Mill's Pride content.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation.

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

3. The permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive

maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

5. The permittee shall operate and maintain equipment to continuously monitor and record SO<sub>2</sub> from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous SO<sub>2</sub> monitoring system including, but not limited to, parts per million SO<sub>2</sub> on an instantaneous (one-minute) basis, emissions of SO<sub>2</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO<sub>2</sub> monitoring system designed to ensure continuous valid and representative readings of SO<sub>2</sub>. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous SO<sub>2</sub> monitoring system must be kept on site and available for inspection during regular office hours.
7. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

Each continuous emission monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR

Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

9. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 .

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, annual, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

10. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12 month Mill's Pride wood waste usage limitation and exceedances of the 32 % Mill's Pride content limitation; for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative Mill's Pride wood waste usage levels.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
3. The deviation (excursion) reports shall be submitted in accordance with Part 1 - General Terms and Conditions of this permit under section (A)(1).
4. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous opacity monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions

unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report.

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

5. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration magnitude, reason (if known), and corrective actions taken (if any), of all instances of SO<sub>2</sub> values in excess of the applicable limit(s) specified OAC Chapter 3745-18, the average daily SO<sub>2</sub> emission rates (lb/mmBtu), and the 30-day rolling, weighted average SO<sub>2</sub> emission rates (lb/mmBtu). These reports shall also contain the total SO<sub>2</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous SO<sub>2</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

6. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in 40 CFR Part 76 or any limitations specified in the terms and

conditions of this permit. These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

7. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in OAC Chapter 3745-21, 40 CFR Part 60, or any limitation(s) specified in the terms and conditions of this permit, in units of the standard. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

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

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

## V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1. of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

8.14 pounds PM/PM<sub>10</sub> per hour  
2.7 pounds VOC per hour

Applicable Compliance Method:

The following controlled emission factors were used to calculate these emission limits:

Controlled emission factor = 0.739 lb/ton PM/PM<sub>10</sub>  
0.22 lb/ton VOC

These emission limits were established by multiplying the emission factor in lb/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- b. Emission Limitation:

1.9 pounds CO per hour

Applicable Compliance Method:

This emissions limit was established by multiplying the heat content of the 0.007937 MMBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/MMBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

- c. Emission Limitation:

24.5 pounds NO<sub>x</sub> per hour  
6.6 pounds SO<sub>2</sub> per hour

Applicable Compliance Method:

The NO<sub>x</sub> emissions limit was established by multiplying the heat content of the 0.007937 mmBtu/lb of the Mill's Pride component of the fuel, times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times 2000 lbs/ton, times the tons of fuel per hour.

The SO<sub>2</sub> emissions limit was established by multiplying the controlled emission factor of 0.6 lb/ton, times the tons of fuel per hour.

Initial compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Continual compliance with those limitations shall be demonstrated by the use of the CEM in conditions A.III.7 and A.III.9, based upon an hourly averaging period as allowed in 40 CFR Part 60.

d. Emission Limitation:

107.4 TPY NO<sub>x</sub>  
8.27 TPY CO

Applicable Compliance Method:

These emission limits were established by multiplying the heat content of the 0.00588 mmBtu/lb of the worst case fuel mixture (32% Mill's Pride and sawmill waste), times the manufacturers recommendation (lb/mmBtu), times the control efficiency, times the tons of fuel per year (maximum of 130,201 TPY total fuel at 32% Mill's Pride content).

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

e. Emission Limitation:

21.5 TPY PM/PM<sub>10</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.33 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of

fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

f. Emission Limitation:

28 TPY SO<sub>2</sub>

Applicable Compliance Method:

These emissions limits were established by multiplying the emission factor of 0.43 lb/ton, times 130,201 TPY (the maximum tons of fuel per year at 32% Mill's Pride content), divided by 2000 lb/ton.

Compliance shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

g. Emission Limitation:

11.8 TPY VOC

Applicable Compliance Method:

These emission limits were established by multiplying the lb/hour allowable emission limit by 8760 hours/year divided by 2000 lb/ton.

Compliance shall be determined by multiplying the lb/hour emissions, based on the results of the most recent performance test which demonstrated compliance, by the actual operating hours per year, divided by 2000 lb/ton.

h. Emission Limitation:

0.0084 pound per hour Pb and 0.02 TPY Pb

Applicable Compliance Method:

Compliance shall be determined by using the emission factor of 0.000048 lb/mmBtu (from AP-42 Fifth ed. 07/01). To calculate the hourly emission rate, multiply the lb/mmBtu emission factor by the maximum hourly heat input of the boiler (mmBtu/hr). If required, the permittee shall demonstrate compliance by emission testing in accordance with US EPA Method 12 of 40 CFR Part 60, Appendix A. Compliance with the annual emission limitation shall be determined using the emission factor of 0.000328 lb/ton (based on mass balance, using average fuel value). Multiply the lb/ton emission factor by the amount of fuel used during the month, to arrive at the tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

i. Emission Limitation:

1.25 pounds Ammonia (NH<sub>3</sub>) per hour and 5.48 TPY Ammonia (NH<sub>3</sub>)

Applicable Compliance Method:

Compliance with the lb/hr emission limitation shall be determined by multiplying the emission factor of 0.07 lbs of ammonia/ton (emission factor supplied by permittee, based on mass balance) by the amount of fuel used per hour. If required, the permittee shall demonstrate compliance by emission testing in accordance with approved US EPA test methods. Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the actual hours of operation and dividing by 2000 lb/ton.

j. Emission Limitation:

57.89 TPY CO total from B001 - B007

Applicable Compliance Method:

Compliance shall be determined by multiplying the actual emission for CO (calculated in accordance with section A.V.1.d.) times the total number of boilers.

k. Emission Limitation:

Particulate emissions from the baghouse exhaust shall not exceed 0.017 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the methods and procedures of Method 5 of 40 CFR Part 60, Appendix A.

l. Emission Limitation:

Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the requirements specified in OAC rule 3745-17-03(B)(1) determined according to Method 9 of 40 CFR Part 60, Appendix A.

m. Emission Limitation

291,998 tons of Mill's Pride wood waste per rolling 12-month period

Applicable Compliance Method:

As per the recordkeeping required by Section III.1., the monthly usage shall be added to the previous 11 months to determine the rolling 12-month total usage.

n. Emission Limitation:

0.67 pound HCL per hour, and 1.28 TPY HCL

Applicable Compliance Method:

The lbs/hr emissions limit was established by multiplying the emission factor of 0.061 lbs of HCL/ton (emission factor supplied by permittee, based on fuel analysis) by the amount of fuel used per hour.

The TPY emissions limit was established by multiplying the emission factor of 0.00167 lb/mmBtu (based on the a maximum of 32% Mill's Pride fuel), times 175 mmBtu/hr ( maximum heat input of the boiler) , times 8760 hrs/yr, divided by 2000 lb/ton.

Compliance with the allowable pounds per hour emission limitations shall be demonstrated by the performance testing as described in condition A.V.2. The permittee shall ensure that the fuel used during testing contains a mixture of 32% Mill's Pride wood waste and 68% sawmill wood waste.

Compliance with the TPY emission limitation shall be determined by multiplying the emission factor, in lb/ton, calculated from the most recent performance test which demonstrated compliance, by the amount of fuel used during the month, to arrive at the

tons/month emissions. The monthly emissions shall be added to the previous 11 months emissions to determine the rolling 12-month total emissions.

2. Emission Testing Requirements

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

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emission unit.
- b. The emission testing shall be conducted to demonstrate compliance with the PM/PM10, SO<sub>2</sub>, NO<sub>x</sub>, VOC and CO emission limits.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Methods 5 of 40 CFR Part 60, Appendix A, for SO<sub>2</sub>, Method 6 of 40 CFR Part 60, Appendix A, for NO<sub>x</sub>, Method 7 of 40 CFR Part 60, Appendix A, for CO, Method 10 of 40 CFR Part 60, Appendix A, for VOC, Method 25 or 25A of 40 CFR Part 60, Appendix A, for HCL, Method 26 of 40 CFR Part 60, Appendix A, as appropriate. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Portsmouth Local Air Agency.

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

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

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

3. Continuous Opacity Monitoring - Certified Systems  
Statement of Certification

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

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

4. Continuous SO<sub>2</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous SO<sub>2</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous SO<sub>2</sub> monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous SO<sub>2</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification Test 2 and/or 40 CFR Part 75.

5. Continuous NO<sub>x</sub> Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days of the effective date of this permit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.

6. Continuous CO Monitoring - Certified Systems  
Statement of Certification

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 and 6 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4 and 6. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 and 6.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B007 - 175 mmBtu/hr Wood Fired Boiler # 7 with baghouse, oxidation catalyst, selective catalytic reduction and sodium bicarbonate injection.		Compliance with OEPA Air Toxics Policy  See section B.III.1. below.

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

1. The permit to install for this emissions unit (B007) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Hydrogen Chloride

TLV (mg/m3): 7.5

Maximum Hourly Emission Rate (lbs/hr): 2.17

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.115

MAGLC (ug/m3): 179

Pollutant: Manganese

TLV (mg/m3): 5.0

Maximum Hourly Emission Rate (lbs/hr): 0.976

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.052

MAGLC (ug/m3): 119

Pollutant: Formaldehyde

TLV (mg/m3): 0.370

Maximum Hourly Emission Rate (lbs/hr): 0.595

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.032

MAGLC (ug/m3): 9

Pollutant: Benzene

TLV (mg/m3): 32.0

Maximum Hourly Emission Rate (lbs/hr): 0.722

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):0.038

MAGLC (ug/m3): 762

Pollutant: Ammonia

TLV (mg/m3): 17.41

Maximum Hourly Emission Rate (lbs/hr): 8.75

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3):2.13

MAGLC (ug/m3): 404

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such

parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

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

#### **IV. Reporting Requirements**

None

#### **V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 -Wood handling system with dust collection system vented to a baghouse.	OAC rule 3745-31-05(A)(3)	PM/PM <sub>10</sub> from the baghouse stack shall not exceed 4.47 pounds per hour and 19.6 TPY.  See section A.I.2.a. below.  See section A.I.2.b. below.  See section A.I.2.c. below.
	OAC rule 3745-17-07(A)(1)	See section A.I.2.d. below.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.d. below.
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	19.6 PM/PM <sub>10</sub> TPY* See section A.I.2.a below.  * the TPY mass emission rate limitations are based on a rolling, 12 month summation of the monthly emissions.

**2. Additional Terms and Conditions**

- 2.a Particulate emissions shall from the baghouse shall not exceed 0.004 gr/dscf of exhaust gases.

- 2.b The wood handling system is an enclosed system located inside a building with a dust collection system vented to a baghouse; therefore, there shall be no visible particulate emissions from the wood handling system or any doors, windows or other building openings.
- 2.c Visible particulate emissions from any stack shall not exceed ten percent (10%) opacity as a six minute average, except as provided by rule.
- 2.d The requirements of this rule are less stringent than the requirements of OAC rule 3745-31-05(A)(3).

## II. Operational Restrictions

- 1. The pressure drop across the baghouse shall be maintained within a range of 2 to 5 inches of water while the emission unit is in operation.

## III. Monitoring and/or Recordkeeping Requirements

- 1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

## IV. Reporting Requirements

- 1. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
- 2. The deviation (excursion) reports shall be submitted in accordance with Part 1 - General Terms and Conditions of this permit under section (A)(1).

## V. Testing Requirements

- 1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - a. Emission Limitation:  
  
10% opacity as a 6-minute average  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated in accordance with the requirements of OAC rule 3745-17-03(B)(3).
  - b. Emission Limitation:

PM/PM<sub>10</sub> emissions from the baghouse stack shall not exceed 0.004 gr/dscf

Applicable Compliance Method:

Compliance shall be determined by stack testing as described in section A.V.2.

c. Emission Limitation:

PM/PM<sub>10</sub> emissions from the baghouse stack shall not exceed 4.47 pounds per hour and 19.6 TPY.

Applicable Compliance Method:

Compliance with the lb/hr and TPY emission limits shall be determined by multiplying the maximum outlet concentration of 0.004 gr/dscf by the maximum volumetric air flow (130,495 acfm), and the appropriate conversion factors or 7000 grains/lb, 1 dscf/1 acfm, 60 min/hr and the emission unit's maximum operating schedule of 8760 hrs/yr.

d. Emission Limitation:

19.6 TPY PM/PM<sub>10</sub> \*

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum outlet concentration of 0.004 gr/dscf by the maximum volumetric air flow (130,495 acfm), and the appropriate conversion factors or 7000 grains/lb, 1 dscf/1 acfm, 60 min/hr and the emission unit's maximum monthly operating schedule; adding the current month's emission rate to the emission rate for the preceding eleven calendar months.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emission unit.
- b. The emission testing shall be conducted to demonstrate compliance with the PM/PM<sub>10</sub> emission limit.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Method 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

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

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

## **VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - Wood handling system with dust handling system vented to a baghouse.	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F002 - Paved Roadways and Parking Areas	OAC rule 3745-31-05(A)(3)	See Section A.2.a.  See Section A.2.b.  no visible particulate emissions except for 1 minute during any 60 minute period.  best available control measures that are sufficient to minimize or eliminate visible emission of fugitive dust (see sections A.2.e., A.2.f., A.2.h., A.2.j., A.2.k., A.2.l.)
Unpaved Roadways and Parking Areas	OAC rule 3745-31-05(A)(3)	See Section A.2.a.  See Section A.2.b.  no visible particulate emissions except for 3 minute during any 60 minute period.  best available control measures that are sufficient to minimize or eliminate visible emission of fugitive dust (see sections A.2.g., A.2.h., A.2.i., A.2.j., A.2.k., A.2.l.)

**2. Additional Terms and Conditions**

- 2.a Total PM emissions shall not exceed 17.1 TPY.
- 2.b Total PM<sub>10</sub> emissions shall not exceed 3.3 TPY. This emission limitation is based on a rolling, 12 month summation of the monthly emissions.

- 2.c** The paved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

paved roadways:

Segment 1  
Segment 2  
Segment 5  
Segment 6  
Segment 7

paved parking areas:

Parking Lot 3  
Parking Lot 8  
Parking Lot 9

- 2.d** The unpaved roadways and parking areas that are covered by this permit and subject to the above-mentioned requirements are listed below:

unpaved roadways:

Segment 4

unpaved parking areas:

None

- 2.e** The permittee shall employ best available control measures on all paved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by sweeping at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.f** The permittee shall employ best available control measures on the unpaved shoulders of all paved roadways for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the unpaved shoulders of all paved roadways with water at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.g** The permittee shall employ best available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned

applicable requirements. In accordance with the permittee's permit application, the permittee has committed to treat the paved roadways and parking areas by watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.

- 2.h The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- 2.i Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.
- 2.j The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- 2.k Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- 2.l Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections of the paved roadways and parking areas in accordance with the following frequencies:

<u>paved roadways and parking areas</u>	<u>minimum inspection frequency</u>
Segment 1	Daily

Segment 2	Daily
Segment 5	Daily
Segment 6	Daily
Segment 7	Daily
Parking Lot 3	Daily
Parking Lot 8	Daily
Parking Lot 9	Daily

<u>unpaved roadways and parking areas</u>	<u>minimum inspection frequency</u>
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Segment 4	Daily
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2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
  
3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.
  
4. The permittee shall maintain records of the following information:
  - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
  - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
  - c. the dates the control measures were implemented; and,
  - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 4.d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

#### IV. Reporting Requirements

1. The permittee shall submit deviation reports that identify any of the following occurrences:
  - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and,
  - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements 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 Limitation:  
  
no visible particulate emissions except for 1 minute during any 60-minute period  
  
Applicable Compliance Method:  
  
Compliance with the emission limitation for the paved roadways and parking areas identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.
  - b. Emission Limitation:  
  
no visible particulate emissions except for 3 minute during any 60-minute period  
  
Applicable Compliance Method:  
  
Compliance with the emission limitation for the unpaved roadways and parking areas identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

c. Emission Limitation:

Total PM emissions shall not exceed 17.1 TPY.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of i through vi. below:

- i. multiply the vehicle miles traveled (VMT) per year on all paved roadways and parking areas for twenty ton vehicles times the 3.94 pounds/VMT emission factor (calculated in accordance with AP-42, 13.2.1) divided by 2,000 pounds/ton; and
- ii. multiply the vehicle miles traveled (VMT) per year on all paved roadways and parking areas for three ton vehicles times the 0.23 pounds/VMT emission factor (calculated in accordance with AP-42, 13.2.1) divided by 2,000 pounds/ton; and
- iii. multiply the vehicle miles traveled (VMT) per year on all paved roadways and parking areas for passenger vehicles times the 0.044 pounds/VMT emission factor (calculated in accordance with AP-42, 13.2.1) divided by 2,000 pounds/ton; and
- iv. multiply the vehicle miles traveled (VMT) per year on all unpaved roadways and parking areas for twenty ton vehicles times the 13.4 pounds/VMT emission factor (calculated in accordance with AP-42, 13.2.2) divided by 2,000 pounds/ton; and
- v. multiply the vehicle miles traveled (VMT) per year on all unpaved roadways and parking areas for three ton vehicles times the 6.28 pounds/VMT emission factor (calculated in accordance with AP-42, 13.2.2) divided by 2,000 pounds/ton; and
- vi. multiply the vehicle miles traveled (VMT) per year on all unpaved roadways and parking areas for passenger vehicles times the 4.05 pounds/VMT emission factor (calculated in accordance with AP-42, 13.2.2) divided by 2,000 pounds/ton.

d. Emission Limitation:

Total PM<sub>10</sub> emissions shall not exceed 3.3 TPY.

Applicable Compliance Method:

Compliance shall be demonstrated by calculating the sum of i through vi. below:

- i. multiply the vehicle miles traveled (VMT) per year on all paved roadways and parking areas for twenty ton vehicles times the 0.77 pounds/VMT emission factor (calculated in accordance with AP-42, 13.2.1) divided by 2,000 pounds/ton; and
- ii. multiply the vehicle miles traveled (VMT) per year on all paved roadways and parking areas for three ton vehicles times the 0.045 pounds/VMT emission factor (calculated in accordance with AP-42, 13.2.1) divided by 2,000 pounds/ton; and

- iii. multiply the vehicle miles traveled (VMT) per year on all paved roadways and parking areas for passenger vehicles times the 0.009 pounds/VMT emission factor (calculated in accordance with AP-42, 13.2.1) divided by 2,000 pounds/ton; and
- iv. multiply the vehicle miles traveled (VMT) per year on all unpaved roadways and parking areas for twenty ton vehicles times the 3.48 pounds/VMT emission factor (calculated in accordance with AP-42, 13.2.2) divided by 2,000 pounds/ton; and
- v. multiply the vehicle miles traveled (VMT) per year on all unpaved roadways and parking areas for three ton vehicles times the 1.63 pounds/VMT emission factor (calculated in accordance with AP-42, 13.2.2) divided by 2,000 pounds/ton; and
- vi. multiply the vehicle miles traveled (VMT) per year on all unpaved roadways and parking areas for passenger vehicles times the 1.05 pounds/VMT emission factor (calculated in accordance with AP-42, 13.2.2) divided by 2,000 pounds/ton.

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F002 - Roadways and Parking Areas	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B008 - 30 mmBtu/hr Natural Gas Fired Impact Dryer Grinder #1 with baghouse.	OAC rule 3745-31-05(A)(3)	3.1 pounds per hour NOx and 13.6 TPY NOx
		3.2 pounds per hour CO and 14.02 TPY CO
		The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and OAC rule 3745-31-10 through 20, and OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	See section A.I.2.b below.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.c. below.
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	1.6 pounds per hour PM/PM <sub>10</sub> and 7.0 TPY PM/PM <sub>10</sub> See section A.I.2.a below.
		* the TPY mass emission rate limitations are based on a rolling, 12 month summation of the monthly emissions.

**2. Additional Terms and Conditions**

- 2.a Particulate emissions shall from the baghouse shall not exceed 0.004 gr/dscf of exhaust gases.
- 2.b Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

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

## II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 5 inches of water while the emissions unit is in operation.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

## IV. Reporting Requirements

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

## V. Testing Requirements

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

- a. Emission Limitation:

3.1 pounds per hour NO<sub>x</sub>

Applicable Compliance Method:

Compliance shall be determined by multiplying the manufacturers recommended emission rate of 0.107 lb/MMBtu by the heating value of natural gas, 1000 BTU/Cu. Ft by the amount of natural gas used per hour.

- b. Emission Limitation:

13.6 TPY NO<sub>x</sub>

Applicable Compliance Method:

Compliance shall be determined by multiplying the manufacturers recommended emission rate of 0.107 lb/MMBtu by the heating value of natural gas, 1000 BTU/Cu. Ft by the amount of natural gas used per year and divide by 2000 lb per ton.

c. Emission Limitation:

3.2 pounds per hour CO

Applicable Compliance Method:

Compliance shall be determined by multiplying the manufacturers recommended emission rate of 0.11 lb/MMBtu by the heating value of natural gas, 1000 BTU/Cu. Ft by the amount of natural gas used per hour.

d. Emission Limitation:

14.02 TPY CO

Applicable Compliance Method:

Compliance shall be determined by multiplying the manufacturers recommended emission rate of 0.11 lb/MMBtu by the heating value of natural gas, 1000 BTU/Cu. Ft by the amount of natural gas used per year and divide by 2000 lb per ton.

e. Emission Limitation:

1.6 pounds per hour PM/PM<sub>10</sub>

Applicable Compliance Method:

Compliance shall be determined by stack testing in accordance with Section A.V.2.

f. Emission Limitation:

7.0 TPY PM/PM<sub>10</sub>

Applicable Compliance Method:

Compliance shall be determined by multiplying the lbs PM/hr emission rate from the baghouse exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the hours of operation per year divided by 2000 lb/ton.

g. Emission Limitation:

Particulate emissions shall from the baghouse shall not exceed 0.004 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be determined by stack testing in accordance with Section A.V.2.

h. Emission Limitation:

7.0 TPY PM/PM<sub>10</sub>\*

Applicable Compliance Method:

Compliance shall be determined by multiplying the lbs PM/hr emission rate from the baghouse exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the hours of operation per year divided by 2000 lb/ton; adding the current month's emission rate to the emission rate for the preceding eleven calendar months.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emission unit.
  - b. The emission testing shall be conducted to demonstrate compliance with the PM/PM<sub>10</sub> emission limit.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Method 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

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

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

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B008 - 30 mmBtu/hr Natural Gas Fired Impact Dryer Grinder #1 with baghouse.	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B009 - 30 mmBtu/hr Natural Gas Fired Impact Dryer Grinder #2 with baghouse.	OAC rule 3745-31-05(A)(3)	3.1 pounds per hour NOx and 13.6 TPY NOx  3.2 pounds per hour CO and 14.02 TPY CO  The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and OAC rule 3745-31-10 through 20, and OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	See section A.I.2.b below.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.c. below.
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	1.6 pounds per hour PM/PM <sub>10</sub> and 7.0 TPY PM/PM <sub>10</sub> See section A.I.2.a below.  * the TPY mass emission rate limitations are based on a rolling, 12 month summation of the monthly emissions.

**2. Additional Terms and Conditions**

- 2.a Particulate emissions shall from the baghouse shall not exceed 0.004 gr/dscf of exhaust gases.
- 2.b Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

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

## II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 5 inches of water while the emissions unit is in operation.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

## IV. Reporting Requirements

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

## V. Testing Requirements

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

- a. Emission Limitation:

3.1 pounds per hour NO<sub>x</sub>

Applicable Compliance Method:

Compliance shall be determined by multiplying the manufacturers recommended emission rate of 0.107 lb/MMBtu by the heating value of natural gas, 1000 BTU/Cu. Ft by the amount of natural gas used per hour.

- b. Emission Limitation:

13.6 TPY NO<sub>x</sub>

Applicable Compliance Method:

Compliance shall be determined by multiplying the manufacturers recommended emission rate of 0.107 lb/MMBtu by the heating value of natural gas, 1000 BTU/Cu. Ft by the amount of natural gas used per year and divide by 2000 lb per ton.

c. Emission Limitation:

3.2 pounds per hour CO

Applicable Compliance Method:

Compliance shall be determined by multiplying the manufacturers recommended emission rate of 0.11 lb/MMBtu by the heating value of natural gas, 1000 BTU/Cu. Ft by the amount of natural gas used per hour.

d. Emission Limitation:

14.02 TPY CO

Applicable Compliance Method:

Compliance shall be determined by multiplying the manufacturers recommended emission rate of 0.11 lb/MMBtu by the heating value of natural gas, 1000 BTU/Cu. Ft by the amount of natural gas used per year and divide by 2000 lb per ton.

e. Emission Limitation:

1.6 pounds per hour PM/PM<sub>10</sub>

Applicable Compliance Method:

Compliance shall be determined by stack testing in accordance with Section A.V.2.

f. Emission Limitation:

7.0 TPY PM/PM<sub>10</sub>

Applicable Compliance Method:

Compliance shall be determined by multiplying the lbs PM/hr emission rate from the baghouse exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the hours of operation per year divided by 2000 lb/ton.

g. Emission Limitation:

Particulate emissions shall from the baghouse shall not exceed 0.004 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be determined by stack testing in accordance with Section A.V.2.

h. Emission Limitation:

7.0 TPY PM/PM<sub>10</sub>\*

Applicable Compliance Method:

Compliance shall be determined by multiplying the lbs PM/hr emission rate from the baghouse exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the hours of operation per year divided by 2000 lb/ton; adding the current month's emission rate to the emission rate for the preceding eleven calendar months.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emission unit.
  - b. The emission testing shall be conducted to demonstrate compliance with the PM/PM<sub>10</sub> emission limit.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Method 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

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

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

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B009 - 30 mmBtu/hr Natural Gas Fired Impact Dryer Grinder #2 with baghouse.	None	None

2. **Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B010 - 30 mmBtu/hr Natural Gas Fired Impact Dryer Grinder #3 with baghouse.	OAC rule 3745-31-05(A)(3)	3.1 pounds per hour NOx and 13.6 TPY NOx
		3.2 pounds per hour CO and 14.02 TPY CO
		The requirements of this rule also include compliance with the requirements of 40 CFR Part 52.21 and OAC rule 3745-31-10 through 20, and OAC rule 3745-17-07(A)(1).
	OAC rule 3745-17-07(A)(1)	See section A.I.2.b below.
	OAC rule 3745-17-11(B)(1)	See section A.I.2.c. below.
	40 CFR Part 52.21 and OAC rule 3745-31-10 through 20	1.6 pound per hour PM/PM <sub>10</sub> and 7.0 TPY PM/PM <sub>10</sub>
		See section A.I.2.a below.
		* the TPY mass emission rate limitations are based on a rolling, 12 month summation of the monthly emissions.

**2. Additional Terms and Conditions**

- 2.a Particulate emissions shall from the baghouse shall not exceed 0.004 gr/dscf of exhaust gases.
- 2.b Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

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

## II. Operational Restrictions

1. The pressure drop across the baghouse shall be maintained within the range of 2 to 5 inches of water while the emissions unit is in operation.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

## IV. Reporting Requirements

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

## V. Testing Requirements

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

- a. Emission Limitation:

3.1 pounds per hour NO<sub>x</sub>

Applicable Compliance Method:

Compliance shall be determined by multiplying the manufacturers recommended emission rate of 0.107 lb/MMBtu by the heating value of natural gas, 1000 BTU/Cu. Ft by the amount of natural gas used per hour.

- b. Emission Limitation:

13.6 TPY NO<sub>x</sub>

Applicable Compliance Method:

Compliance shall be determined by multiplying the manufacturers recommended emission rate of 0.107 lb/MMBtu by the heating value of natural gas, 1000 BTU/Cu. Ft by the amount of natural gas used per year and divide by 2000 lb per ton.

c. Emission Limitation:

3.2 pounds per hour CO

Applicable Compliance Method:

Compliance shall be determined by multiplying the manufacturers recommended emission rate of 0.11 lb/MMBtu by the heating value of natural gas, 1000 BTU/Cu. Ft by the amount of natural gas used per hour.

d. Emission Limitation:

14.02 TPY CO

Applicable Compliance Method:

Compliance shall be determined by multiplying the manufacturers recommended emission rate of 0.11 lb/MMBtu by the heating value of natural gas, 1000 BTU/Cu. Ft by the amount of natural gas used per year and divide by 2000 lb per ton.

e. Emission Limitation:

1.6 pounds per hour PM/PM<sub>10</sub>

Applicable Compliance Method:

Compliance shall be determined by stack testing in accordance with Section A.V.2.

f. Emission Limitation:

7.0 TPY PM/PM<sub>10</sub>

Applicable Compliance Method:

Compliance shall be determined by multiplying the lbs PM/hr emission rate from the baghouse exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the hours of operation per year divided by 2000 lb/ton.

g. Emission Limitation:

Particulate emissions shall from the baghouse shall not exceed 0.004 gr/dscf of exhaust gases.

Applicable Compliance Method:

Compliance shall be determined by stack testing in accordance with Section A.V.2.

h. Emission Limitation:

7.0 TPY PM/PM<sub>10</sub>\*

Applicable Compliance Method:

Compliance shall be determined by multiplying the lbs PM/hr emission rate from the baghouse exhaust, calculated from the results of the most recent performance test which demonstrated compliance, by the hours of operation per year divided by 2000 lb/ton; adding the current month's emission rate to the emission rate for the preceding eleven calendar months.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the emission unit.
  - b. The emission testing shall be conducted to demonstrate compliance with the PM/PM<sub>10</sub> emission limit.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): for particulates, Method 5 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

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

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

**VI. Miscellaneous Requirements**

None

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
B010 - 30 mmBtu/hr Natural Gas Fired Impact Dryer Grinder #3 with baghouse.	None	None

**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