



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL CERTIFIED MAIL  
HOLMES COUNTY**

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049

**Application No: 02-14671**

**DATE: 3/20/2001**

Berlin Wood Products Inc  
Art Yoder  
PO Box 184  
Berlin, OH 44610

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, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA

NEDO



**Permit To Install**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**FINAL PERMIT TO INSTALL 02-14671**

Application Number: 02-14671  
APS Premise Number: 0238000109  
Permit Fee: **\$1600**  
Name of Facility: Berlin Wood Products Inc  
Person to Contact: Art Yoder  
Address: PO Box 184  
Berlin, OH 44610

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**5039 County Road 120**  
**Berlin, Ohio**

Description of proposed emissions unit(s):  
**4 wood burning stoves.**

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. 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 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 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. Records Retention Requirements**

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.

#### **4. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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 verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction 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. 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 emissions unit(s) that is (are) served by such control system(s).

**6. 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.

**7. 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.

**8. 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.

**9. 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

**Berlin Wood Products Inc**  
**PTI Application: 02-14671**  
**Issued: 3/20/2001**

**Facility ID: 0238000109**

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.

**10. 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.

**11. 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).

**12. 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.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This 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 emissions unit(s) covered by this permit.

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**14. 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.

**15. 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.

**B. 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>
<u>PE</u>	<u>10.4</u>

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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 - Mahoning model 500D, unit S-1, 1.2 mmBTU/hr wood-fired or natural gas-fired furnace.	OAC rule 3745-31-05(A)(3)	See A.2.a below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-7(A) and OAC rule 3745-10(C)(2).
	OAC rule 3745-17-07(A)	See A.2.b below.
	OAC rule 3745-17-10(C)(2)	See A.2.c below.

**2. Additional Terms and Conditions**

- 2.a Particulate emissions shall not exceed 2.6 tons per year.
- 2.b Visible emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule.

The visible particulate emission limitations specified above shall not apply to the following operations, provided the operations are documented in an operations log kept at the facility:

- i. the start-up of this emissions unit for a period of time required to achieve stable combustion conditions, but no more than three (3) hours from the moment of start-up. "Start-up" means the commencement of firing of fuel from a cold non- fired

condition;

- ii. the shutdown of this emissions unit for a period of not more than three (3) hours;
- iii. the malfunction of this emissions unit or associated equipment, if the permittee complies with the requirements of OAC Rule 3745- 15-06;
- iv. intermittent soot-blowing operations (the cleaning of heat transfer surfaces with pressurized air or steam);
- v. intermittent ash removal operations (the dumping or pulling of ash); and
- vi. the commencement of increased wood waste/saw dust firing from a banked condition for a period not to exceed thirty (30) minutes. "Banked condition" means the condition where the fuel is burned on the grates at rates which are sufficient to maintain ignition only.

**2.c** Particulate emissions shall not exceed 0.6 lb/mmBtu of actual heat input.

## **B. Operational Restrictions**

1. The permittee shall burn only wood waste and/or natural gas in this emissions unit.

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

1. For each day during which the permittee burns a fuel other than wood waste and/or natural gas , the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain the following daily records related to the operation of this emissions unit:
  - a. The time the emissions unit began operation.
  - b. The time the emissions unit began shut down.
  - c. The time the emissions unit commenced burning from a banked condition.
  - d. The times of ash removal and soot blowing.
  - e. The time of any equipment malfunction which results in excessive plume opacity from this

emissions unit.

- f. Any time the plume opacity is not representative of the normal operation of the emissions unit.

**D. Reporting Requirements**

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

## **E. Testing Requirements**

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

- a. Emissions Limitation:  
0.6 lb/MMBtu PE

Applicable Compliance Method:

Compliance shall be determined by multiplying the PE emissions per MMBtu, times the maximum heat input rating, according to the following equation:

$$(0.3636 \text{ lb/MMBtu PE}) ( 1.2 \text{ MMBtu/hr})$$

where:

0.3636 lb/MMBtu PE was the emissions rate determined by a one run stack test of the source on February 8, 2001; and

1.2 MMBtu/hr is the maximum heat input determined by multiplying the maximum wood burned per hour, 150 lbs, by the heat content of the wood as determined by a February 16, 2001 analysis, 8120 Btu/lb.

If required pursuant to OAC 3745-15-04, the permittee shall demonstrate compliance with the particulate emission limit by means of physical testing of the stack emissions from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and in OAC 3745-17-03(B)(9).

- b. Emission Limitation:  
1.9 tons per year of PE

Applicable Compliance Method:

Compliance shall be determined by multiplying the PE emissions per MMBtu, times the maximum heat input rating times the 8760 hours per year and dividing by 2000 lbs per ton, according to the following equation:

$$(0.3636 \text{ lb/MMBtu PE}) ( 1.2 \text{ MMBtu/hr}) (8760 \text{ hr.yr})(\text{ton}/2000 \text{ lbs})$$

where:

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Emissions Unit ID: **B001**

0.3636 lb/MMBtu PE was the emissions rate determined by a one run stack test of the source on February 8, 2001; and

1.2 MMBtu/hr is the maximum heat input determined by multiplying the maximum wood burned per hour, 150 lbs, by the heat content of the wood as determined by a February 16, 2001 analysis, 8120 Btu/lb.

- c. Emission Limitation  
20% opacity as a six-minute average, except as provided by rule

Applicable Compliance Method:

Compliance shall be determined through visible emissions observations in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B).

#### **F. Miscellaneous Requirements**

None.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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 - Mahoning model 500D, unit S-2, 1.2 mmBTU/hr wood-fired or natural gas-fired furnace.	OAC rule 3745-31-05(A)(3)	See A.2.a below.
	OAC rule 3745-17-07(A)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-7(A) and OAC rule 3745-10(C)(2).
	OAC rule 3745-17-10(C)(2)	See A.2.b below.
		See A.2.c below.

**2. Additional Terms and Conditions**

- 2.a Particulate emissions shall not exceed 2.6 tons per year.
- 2.b Visible emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule.

The visible particulate emission limitations specified above shall not apply to the following operations, provided the operations are documented in an operations log kept at the facility:

- i. the start-up of this emissions unit for a period of time required to achieve stable combustion conditions, but no more than three (3) hours from the moment of start-up. "Start-up" means the commencement of firing of fuel from a cold non-fired condition;

- ii. the shutdown of this emissions unit for a period of not more than three (3) hours;
- iii. the malfunction of this emissions unit or associated equipment, if the permittee complies with the requirements of OAC Rule 3745- 15-06;
- iv. intermittent soot-blowing operations (the cleaning of heat transfer surfaces with pressurized air or steam);
- v. intermittent ash removal operations (the dumping or pulling of ash); and
- vi. the commencement of increased wood waste/saw dust firing from a banked condition for a period not to exceed thirty (30) minutes. "Banked condition" means the condition where the fuel is burned on the grates at rates which are sufficient to maintain ignition only.

**2.c** Particulate emissions shall not exceed 0.6 lb/mmBtu of actual heat input.

## **B. Operational Restrictions**

1. The permittee shall burn only wood waste and/or natural gas in this emissions unit.

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

1. For each day during which the permittee burns a fuel other than wood waste and/or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain the following daily records related to the operation of this emissions unit:
  - a. The time the emissions unit began operation.
  - b. The time the emissions unit began shut down.
  - c. The time the emissions unit commenced burning from a banked condition.
  - d. The times of ash removal and soot blowing.
  - e. The time of any equipment malfunction which results in excessive plume opacity from this emissions unit.

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**Facility ID: 0238000109**

Emissions Unit ID: **B002**

- f. Any time the plume opacity is not representative of the normal operation of the emissions unit.

**D. Reporting Requirements**

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

## **E. Testing Requirements**

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

- a. Emissions Limitation:  
0.6 lb/MMBtu PE

Applicable Compliance Method:

Compliance shall be determined by multiplying the PE emissions per MMBtu, times the maximum heat input rating, according to the following equation:

$$(0.3636 \text{ lb/MMBtu PE}) (1.2 \text{ MMBtu/hr})$$

where:

0.3636 lb/MMBtu PE was the emissions rate determined by a one run stack test of the source on February 8, 2001; and

1.2 MMBtu/hr is the maximum heat input determined by multiplying the maximum wood burned per hour, 150 lbs, by the heat content of the wood as determined by a February 16, 2001 analysis, 8120 Btu/lb.

If required pursuant to OAC 3745-15-04, the permittee shall demonstrate compliance with the particulate emission limit by means of physical testing of the stack emissions from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and in OAC 3745-17-03(B)(9).

- b. Emission Limitation:  
1.9 tons per year of PE

Applicable Compliance Method:

Compliance shall be determined by multiplying the PE emissions per MMBtu, times the maximum heat input rating times the 8760 hours per year and dividing by 2000 lbs per ton, according to the following equation:

$$(0.3636 \text{ lb/MMBtu PE}) (1.2 \text{ MMBtu/hr}) (8760 \text{ hr.yr})(\text{ton}/2000 \text{ lbs})$$

where:

0.3636 lb/MMBtu PE was the emissions rate determined by a one run stack test of the source on February 8, 2001; and

1.2 MMBtu/hr is the maximum heat input determined by multiplying the maximum wood burned per hour, 150 lbs, by the heat content of the wood as determined by a February 16, 2001 analysis, 8120 Btu/lb.

- c. Emission Limitation  
20% opacity as a six-minute average, except as provided by rule

Applicable Compliance Method:

Compliance shall be determined through visible emissions observations in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B).

#### **F. Miscellaneous Requirements**

None.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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 - Mahoning model 500D, unit S-3, 1.2 mmBTU/hr wood-fired or natural gas-fired furnace.	OAC rule 3745-31-05(A)(3)	See A.2.a below. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-7(A) and OAC rule 3745-10(C)(2).
	OAC rule 3745-17-07(A)	See A.2.b below.
	OAC rule 3745-17-10(C)(2)	See A.2.c below.

**2. Additional Terms and Conditions**

- 2.a Particulate emissions shall not exceed 2.6 tons per year.
- 2.b Visible emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule.

The visible particulate emission limitations specified above shall not apply to the following operations, provided the operations are documented in an operations log kept at the facility:

- i. the start-up of this emissions unit for a period of time required to achieve stable combustion conditions, but no more than three (3) hours from the moment of start-up. "Start-up" means the commencement of firing of fuel from a cold non- fired

condition;

- ii. the shutdown of this emissions unit for a period of not more than three (3) hours;
- iii. the malfunction of this emissions unit or associated equipment, if the permittee complies with the requirements of OAC Rule 3745-15-06;
- iv. intermittent soot-blowing operations (the cleaning of heat transfer surfaces with pressurized air or steam);
- v. intermittent ash removal operations (the dumping or pulling of ash); and
- vi. the commencement of increased wood waste/saw dust firing from a banked condition for a period not to exceed thirty (30) minutes. "Banked condition" means the condition where the fuel is burned on the grates at rates which are sufficient to maintain ignition only.

**2.c** Particulate emissions shall not exceed 0.6 lb/mmBtu of actual heat input.

## **B. Operational Restrictions**

1. The permittee shall burn only wood waste and/or natural gas in this emissions unit.

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

1. For each day during which the permittee burns a fuel other than wood waste and/or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain the following daily records related to the operation of this emissions unit:
  - a. The time the emissions unit began operation.
  - b. The time the emissions unit began shut down.
  - c. The time the emissions unit commenced burning from a banked condition.
  - d. The times of ash removal and soot blowing.
  - e. The time of any equipment malfunction which results in excessive plume opacity from this emissions unit.

- f. Any time the plume opacity is not representative of the normal operation of the emissions unit.

#### **D. Reporting Requirements**

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

#### **E. Testing Requirements**

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

- a. Emissions Limitation:  
0.6 lb/MMBtu PE

Applicable Compliance Method:

Compliance shall be determined by multiplying the PE emissions per MMBtu, times the maximum heat input rating, according to the following equation:

$$(0.3636 \text{ lb/MMBtu PE}) ( 1.2 \text{ MMBtu/hr})$$

where:

0.3636 lb/MMBtu PE was the emissions rate determined by a one run stack test of the source on February 8, 2001; and

1.2 MMBtu/hr is the maximum heat input determined by multiplying the maximum wood burned per hour, 150 lbs, by the heat content of the wood as determined by a February 16, 2001 analysis, 8120 Btu/lb.

If required pursuant to OAC 3745-15-04, the permittee shall demonstrate compliance with the particulate emission limit by means of physical testing of the stack emissions from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and in OAC 3745-17-03(B)(9).

- b. Emission Limitation:  
1.9 tons per year of PE

Applicable Compliance Method:

Compliance shall be determined by multiplying the PE emissions per MMBtu, times the

Emissions Unit ID: **B003**

maximum heat input rating times the 8760 hours per year and dividing by 2000 lbs per ton, according to the following equation:

$$(0.3636 \text{ lb/MMBtu PE}) (1.2 \text{ MMBtu/hr}) (8760 \text{ hr.yr})(\text{ton}/2000 \text{ lbs})$$

where:

0.3636 lb/MMBtu PE was the emissions rate determined by a one run stack test of the source on February 8, 2001; and

1.2 MMBtu/hr is the maximum heat input determined by multiplying the maximum wood burned per hour, 150 lbs, by the heat content of the wood as determined by a February 16, 2001 analysis, 8120 Btu/lb.

- c. Emission Limitation  
 20% opacity as a six-minute average, except as provided by rule

Applicable Compliance Method:

Compliance shall be determined through visible emissions observations in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B).

## **F. Miscellaneous Requirements**

None.

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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 - Mahoning model 500D, unit S-4, 1.2 mmBTU/hr wood-fired or natural gas-fired furnace.	OAC rule 3745-31-05(A)(3)	See A.2.a below.
	OAC rule 3745-17-07(A)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-7(A) and OAC rule 3745-10(C)(2).
	OAC rule 3745-17-10(C)(2)	See A.2.b below.  See A.2.c below.

**2. Additional Terms and Conditions**

- 2.a Particulate emissions shall not exceed 2.6 tons per year.
- 2.b Visible emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule.

The visible particulate emission limitations specified above shall not apply to the following operations, provided the operations are documented in an operations log kept at the facility:

- i. the start-up of this emissions unit for a period of time required to achieve stable combustion conditions, but no more than three (3) hours from the moment of start-up. "Start-up" means the commencement of firing of fuel from a cold non-fired condition;

- ii. the shutdown of this emissions unit for a period of not more than three (3) hours;
- iii. the malfunction of this emissions unit or associated equipment, if the permittee complies with the requirements of OAC Rule 3745- 15-06;
- iv. intermittent soot-blowing operations (the cleaning of heat transfer surfaces with pressurized air or steam);
- v. intermittent ash removal operations (the dumping or pulling of ash); and
- vi. the commencement of increased wood waste/saw dust firing from a banked condition for a period not to exceed thirty (30) minutes. "Banked condition" means the condition where the fuel is burned on the grates at rates which are sufficient to maintain ignition only.

**2.c** Particulate emissions shall not exceed 0.6 lb/mmBtu of actual heat input.

**B. Operational Restrictions**

1. The permittee shall burn only wood waste and/or natural gas in this emissions unit.

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

1. For each day during which the permittee burns a fuel other than wood waste and/or natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain the following daily records related to the operation of this emissions unit:
  - a. The time the emissions unit began operation.
  - b. The time the emissions unit began shut down.
  - c. The time the emissions unit commenced burning from a banked condition.
  - d. The times of ash removal and soot blowing.
  - e. The time of any equipment malfunction which results in excessive plume opacity from this emissions unit.

**Berlin Wood Products Inc**  
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**Issued**

**Facility ID: 0238000109**

Emissions Unit ID: **B004**

- f. Any time the plume opacity is not representative of the normal operation of the emissions unit.

**D. Reporting Requirements**

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

## **E. Testing Requirements**

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

- a. Emissions Limitation:  
0.6 lb/MMBtu PE

Applicable Compliance Method:

Compliance shall be determined by multiplying the PE emissions per MMBtu, times the maximum heat input rating, according to the following equation:

$$(0.3636 \text{ lb/MMBtu PE}) (1.2 \text{ MMBtu/hr})$$

where:

0.3636 lb/MMBtu PE was the emissions rate determined by a one run stack test of the source on February 8, 2001; and

1.2 MMBtu/hr is the maximum heat input determined by multiplying the maximum wood burned per hour, 150 lbs, by the heat content of the wood as determined by a February 16, 2001 analysis, 8120 Btu/lb.

If required pursuant to OAC 3745-15-04, the permittee shall demonstrate compliance with the particulate emission limit by means of physical testing of the stack emissions from this emissions unit in accordance with testing procedures listed in 40 CFR Part 60, "Standards of Performance for New Stationary Sources", Appendix A, Method 5, and in OAC 3745-17-03(B)(9).

- b. Emission Limitation:  
1.9 tons per year of PE

Applicable Compliance Method:

Compliance shall be determined by multiplying the PE emissions per MMBtu, times the maximum heat input rating times the 8760 hours per year and dividing by 2000 lbs per ton, according to the following equation:

$$(0.3636 \text{ lb/MMBtu PE}) (1.2 \text{ MMBtu/hr}) (8760 \text{ hr.yr}) / (2000 \text{ lbs})$$

where:

0.3636 lb/MMBtu PE was the emissions rate determined by a one run stack test of the source on February 8, 2001; and

1.2 MMBtu/hr is the maximum heat input determined by multiplying the maximum wood burned per hour, 150 lbs, by the heat content of the wood as determined by a February 16, 2001 analysis, 8120 Btu/lb.

- c. Emission Limitation  
20% opacity as a six-minute average, except as provided by rule

Applicable Compliance Method:

Compliance shall be determined through visible emissions observations in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B).

**F. Miscellaneous Requirements**

None.

**NEW SOURCE REVIEW FORM B**

PTI Number: 02-14671 Facility ID: 0238000109

FACILITY NAME Berlin Wood Products Inc

FACILITY DESCRIPTION Wood wagon manufacturing facility CITY/TWP Berlin

Emissions Unit ID: B004

SIC CODE 2499 SCC CODE 1-02-009-06 EMISSIONS UNIT ID B001

EMISSIONS UNIT DESCRIPTION Mahoning model 500D, unit S-1, 1.2 mmBTU/hr wood fired furnace.

DATE INSTALLED 9/99

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.3636 lb/MMBtu	0.30	0.6 MMBtu/hr	2.6
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Compliance with OAC rule 3745-17-10 and 3745-17-07.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

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

**TOXIC AIR CONTAMINANTS**

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

AIR TOXICS MODELING PERFORMED\*? YES NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SOURCE REVIEW FORM B**

PTI Number: 02-14671 Facility ID: 0238000109

FACILITY NAME Berlin Wood Products Inc

FACILITY DESCRIPTION Wood wagon manufacturing facility CITY/TWP Berlin

Emissions Unit ID: **B004**

SIC CODE 2499 SCC CODE 1-02-009-06 EMISSIONS UNIT ID B002

EMISSIONS UNIT DESCRIPTION Mahoning model 500D, unit S-2, 1.2 mmBtu/hr wood fired furnace.

DATE INSTALLED 9/99

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.3636 lb/MMBtu	0.30	0.6 MMBtu/hr	2.6
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Compliance with OAC rule 3745-17-10 and 3745-17-07.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

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

**TOXIC AIR CONTAMINANTS**

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

AIR TOXICS MODELING PERFORMED\*? YES NO

IDENTIFY THE AIR CONTAMINANTS:

**NEW SC**

PTI Num

FACILITY

Emissions Unit ID: **B004**

FACILITY DESCRIPTION Wood wagon manufacturing facility CITY/TWP Berlin

SIC CODE 2499 SCC CODE 1-02-009-06 EMISSIONS UNIT ID B003

EMISSIONS UNIT DESCRIPTION Mahoning model 550D, unit S-3, 1.2 mmBtu/hr wood-fired furnace.

DATE INSTALLED 9/99

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

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter	attainment	0.3636 lb/MMBtu	0.30	0.6 MMBtu/hr	2.6
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds					
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? \_\_\_\_\_ NESHAP? \_\_\_\_\_ PSD? \_\_\_\_\_ OFFSET POLICY? \_\_\_\_\_

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

**Compliance with OAC rule 3745-17-10 and 3745-17-07.**

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

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

**TOXIC AIR CONTAMINANTS**

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

AIR TOXICS MODELING PERFORMED\*? \_\_\_\_\_ YES \_\_\_\_\_ NO

IDENTIFY THE AIR CONTAMINANTS: \_\_\_\_\_

