



TO: Interested Parties / Applicant
RE: Miller Veneers Inc. / 097-21803-00146
FROM: Felicia A. Robinson
Administrator

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Indianapolis Office of Environmental Services, Air Permits at (317) 327-2234.

Enclosures



Air Quality Hotline: 317-327-4AIR | knozone.com

Department of Public Works
Office of Environmental Services

2700 Belmont Avenue
Indianapolis, IN 46221

317-327-2234
Fax 327-2274
TDD 327-5186
indygov.org/dpw



January 17, 2007

Mr. Tom Miller
Miller Veneers Inc.
P.O. Box 11085
Indianapolis, Indiana 46201

CERTIFIED MAIL 7000 0600 0023 5186 4501

Re: **R097-21803-00146**
Revised Registered Construction and Operation
Status, **R097-19201-00146**

Dear Mr. Miller:

The application from Miller Veneers Inc., received on December 27, 2005, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following veneer manufacturing operation, located at 3724 East 13th Street, is classified as registered:

- (a) One (1) wood-fired fire tube steam boiler, with a maximum heat input capacity of 14.5 MMBtu per hour, installed in 1991 and modified in 2006, identified as Emission Unit ID #1, using a cyclone for particulate control, and exhausting to stack #1.
- (b) One (1) steam boiler, fired by natural gas, with a maximum heat input capacity of 11.5 MMBtu per hour, constructed in 2005, identified as Emission Unit ID #2, using no control, and exhausting to stack #2.
- (c) One (1) cut off saw, identified as Whirlwind, with a maximum capacity of 7,000 pounds of logs per hour, and exhausting inside the building.
- (d) Two (2) veneer dryers, using heat from the boilers, with emissions exhausting inside the building.

The following conditions shall be applicable:

- (a) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
 - (1) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (b) Pursuant to 326 IAC 6-2-4 (Particulate Matter Limitations for Sources of Indirect Heating), particulate emissions from indirect heating facilities shall be limited by the following equation:



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$$Pt = 1.09/Q^{0.26}$$

Where:

Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million Btu per hour
MMBtu/hr) heat input.

- (1) Pursuant to 326 IAC 6-2-4(a), particulate matter emissions from the boiler EU ID #2 shall not exceed 0.497 pounds per million Btu (lbs/MMBtu).
- (2) Pursuant to 326 IAC 6-2-4(a), particulate matter emissions from the boiler EU ID #1 shall not exceed 0.467 pounds per million Btu (lbs/MMBtu).
- (c) The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the boilers (EU ID #1 and EU ID #2) except when otherwise specified in 40 CFR 60, Subpart Dc.
- (d) Pursuant to NSPS 40 CFR Part 60, §60.48c, the owner or operator of this source shall submit notification of the date of the boiler EU ID #1 modification, anticipated startup, and actual startup, as provided by §60.7 of this part.
- (e) Pursuant to NSPS 40 CFR Part 60, §60.48c, the owner or operator of this source shall submit notification of the date of the boiler EU ID #2 construction, anticipated startup, and actual startup, as provided by §60.7 of this part.
- (f) Pursuant to NSPS 40 CFR Part 60, §60.48c(g), the owner or operator of this source shall keep monthly records of the amount of wood waste combusted in the boiler EU ID #1. These records shall be maintained at the source for a period of two (2) years following the date of such record.
- (g) Pursuant to NSPS 40 CFR Part 60, §60.48c(g), the owner or operator of this source shall keep monthly records of the amount of natural gas combusted in the boiler EU ID #2. These records shall be maintained at the source for a period of two (2) years following the date of such record.
- (h) Pursuant to 326 IAC 6-3-2(e), the particulate from the cutoff saw (Whirlwind) shall be limited to 9.5 pounds per hour, based on a process weight rate of 7,000 pounds per hour.

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

- (i) Pursuant to 326 IAC 12, this rule, the Permittee shall keep daily records of the fuel burned in the boilers (EU ID #1 and EU ID #2).

An authorized individual shall provide an annual notice to the IDEM Office of Air Quality and Indianapolis OES that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

IDEM, Office of Air Quality
Compliance Data Section
100 North Senate Avenue
Indianapolis, IN 46204-2251

and

Indianapolis Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221-2097

no later than March 1 of each year, with the annual notice being submitted in the format attached. An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) and OES if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

This registration is issued to this source. The source may operate according to 326 IAC 2-5.5.

OES has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Stephen Treimel, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7902 to speak directly to Mr. Treimel. Questions may also be directed to Anh-Tauh Nguyen, OES, (317) 327-2234, 2700 Belmont Avenue, Indianapolis, Indiana 46221-2097.

Sincerely,

Original Signed by Felicia A. Robinson

Felicia A. Robinson, Administrator

cc: OES Files - 2 copies
OES Air Compliance
USEPA - R5
Marion County Health Dept.
IDEM, Mindy Hahn

Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

Company Name:	Miller Veneers Inc.
Address:	3724 East 13 th Street
City:	Indianapolis, Indiana 46201
Authorized individual:	Tom Miller
Phone #:	(317) 638-2326
Registration #:	097-21803-00146

I hereby certify that Miller Veneers Inc. is still in operation and is in compliance with the requirements of Registration 097-21803-00146.

Name (typed):
Title:
Signature:
Date:

**Indiana Department of Environmental Management
Office of Air Quality
and
City of Indianapolis
Office of Environmental Services**

Technical Support Document (TSD) for a Registration Revision

Source Background and Description

Source Name:	Miller Veneers Inc.
Source Location:	3724 East 13th Street, Indianapolis, Indiana 46201
County:	Marion
SIC Code:	2499
Operation Permit No.:	R097-19201-00146
Operation Permit Issuance Date:	March 1, 2005
Permit Revision No.:	097-21803-00146
Permit Reviewer:	ERG/ST

The Indiana Department of Environmental Management (IDEM) Office of Air Quality (OAQ) and Indianapolis Office of Environmental Services (OES) have reviewed an application from Miller Veneers Inc., relating to the conversion of an existing 9.0 MMBtu/hour natural gas and wood-fired boiler to a 14.5 MMBtu/hour wood-fired boiler.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) boiler, fired by natural gas and wood, with a maximum heat input capacity of nine (9) million Btu per hour (MMBtu/hr), installed in 1991, using no control, and exhausting to the atmosphere, identified as Emission Unit ID #1.
- (b) One (1) steam boiler, fired by natural gas, with a maximum heat input capacity of 11.5 MMBtu per hour, constructed in 2005, identified as Emission Unit ID #2, using no control, and exhausting to stack #2.
- (c) One (1) cut off saw, identified as Whirlwind, with a maximum capacity of 7,000 pounds of logs per hour, and exhausting inside the building
- (d) Two (2) veneer dryers, using heat from the boilers, and exhausting inside the building

These emission units were omitted from the source's original Registration 097-19201-00146, issued on March 1, 2005 and have been added in this Registration Revision. These emission units would not require a permit pursuant to 326 IAC 2-1.1-3(e)(1) and therefore are not considered unpermitted emission units.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

Emission Units and Pollution Control Equipment to Be Modified Under This Registration Revision

The existing natural gas and wood fired steam boiler (listed in (a) above) is to be modified as follows:

- (a) One (1) wood-fired fire tube steam boiler, with a maximum heat input capacity of 14.5 MMBtu per hour, installed in 1991 and modified in 2006, identified as Emission Unit ID #1, using a cyclone for particulate control, and exhausting to stack #1.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

Registration 097-19201-00146, issued on March 1, 2005; and

Registration Revision 097-21127-00146, issued on May 20, 2005.

All conditions from previous approvals were incorporated into this permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Administrator that the modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on December 27, 2005.

Emission Calculations

See Appendix A (pages 1 through 4) of this document for detailed emissions calculations. The source conducted stack testing on boiler #1 for filterable PM and PM10 using EPA Method 5 on November 10, 2005. The test determined that filterable PM and PM10 emissions are 0.239 lbs/MMBtu. The figures for potential to emit of PM, PM10 and PM2.5 in the following table are based on the emission factor derived from stack testing.

Potential To Emit of the Source Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit before Modification (tons/year)	Potential To Emit of the Modification (tons/year)	Potential To Emit after Modification (tons/year)
PM	15.0	7.95	23
PM10	13.8	6.99	20.7
SO ₂	1.0	0.6	1.6
VOC	11.6	0.4	12.0
CO	29.0	14.5	43.5
NO _x	13.7	5.3	19.0

HAP	Potential To Emit Before Modification (tons/year)	Potential To Emit of the Modification (tons/year)	Potential To Emit After Modification (tons/year)
Hydrogen Chloride	0.75	0.45	1.21
Benzene	0.17	0.1	0.27
Hexane	0.09	0.0	0.09
Acrolein	0.16	0.09	0.25
Formaldehyde	0.25	0.11	0.36
Combination of HAPs	2.91	0.81	3.72

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of particulate after modification is equal to or greater than five (5) tons per year and less than twenty-five (25) tons per year. The potential to emit (as defined in 326 IAC 2-7-1(29)) of CO is less than one hundred (100) tons per year, and the potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants is less than twenty-five (25) tons per year. Therefore, the source is registered and subject to the provisions of 326 IAC 2-5.1-2.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Justification for the Revision

This application is a Registration Revision request because it is not a Notice-Only change per 326 IAC 2-5.5-6(d) and, therefore, is it submitted pursuant to 326 IAC 2-5.5-6(g).

This revision application is being processed pursuant to 326 IAC 2-5.5-6(h). Following this Registration Revision, 097-21803-00146, the potential to emit of PM, PM10, SO₂, VOC, and NO_x remains less than twenty five (25) tons per year, and potential to emit CO remains less than one hundred (100) tons per year. Therefore, the source is still subject to the provisions of 326 IAC 2-5.5.

Actual Emissions

The following table shows the actual emissions for all emissions units from the source. This information reflects the 2001 OES emission data.

Pollutant	Actual Emissions (tons/year)
PM	Negligible
PM-10	Negligible
SO ₂	Negligible
VOC	Negligible
CO	Negligible
NO _x	Negligible
HAP	Negligible

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM10	Attainment
PM2.5	Non-attainment
SO ₂	Maintenance Attainment
NO ₂	Attainment
8-hour Ozone	Basic Non-attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability section of this document.
- (b) Marion County has been classified as nonattainment for PM_{2.5} in 70 FR 943 dated January 5, 2005. Until U.S. EPA adopts specific New Source Review rules for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as surrogate for PM_{2.5} emissions, pursuant to the Non-attainment New Source Review requirements. See the State Rule Applicability section of this document.
- (c) Marion County has been classified as attainment or unclassifiable in Indiana for PM₁₀, SO₂, NO₂, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability section of this document.
- (d) Fugitive Emissions
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.
- (e) On October 25, 2006, the Indiana Air Pollution Control Board revised a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited, after the modification):

Pollutant	Potential To Emit (tons/year)
PM	23
PM-10	20.7
SO ₂	1.6
VOC	12.0
CO	43.5
NO _x	19.0
Single HAP (Hydrogen Chloride)	1.21
Combination of HAPs	3.72

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (b) This existing source is not a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons or greater per year. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Proposed Modification

PTE from the proposed modification (based on 8760 hours of operation per year at rated capacity):

Pollutant	PM10 (ton/yr)	PM2.5 (ton/yr)	SO ₂ (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO _x (ton/yr)
Proposed Modification	6.99	6.02	0.6	0.4	14.5	5.3
PSD, Emission Offset , Nonattainment New Source Review Threshold Level	250	100	250	100	250	100

- (a) This modification to an existing minor stationary source is not major because the emission increase is less than the PSD major source levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (b) This modification to an existing minor stationary source is not major because the emission increase is less than the Emission Offset major source levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit 097-21803-00146, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

Federal Rule Applicability

- (a) The 14.5 MMBtu/hr wood-fired fire tube steam boiler (EU ID#1) and the 11.5 MMBtu/hr natural gas-fired steam boiler (EU ID #2) are subject to the requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12, 40 CFR 60, Subpart Dc) because the maximum heat input capacity of these two boilers is less than 100 MMBtu/hr but greater than 10 MMBtu/hr and these boilers were constructed or modified after June 9, 1989. The 14.5 MMBtu/hr wood-fired steam boiler (EU ID #1) has a maximum heat input capacity less than 30 MMBtu/hr.
- (1) The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the boilers EU ID #1 and EU ID #2 except when otherwise specified in 40 CFR 60, Subpart Dc.
 - (2) Pursuant to NSPS 40 CFR Part 60, §60.48c, the owner or operator of this source shall submit notification of the date of boiler EU ID #1 modification, anticipated startup, and actual startup, as provided by §60.7 of this part.
 - (3) Pursuant to NSPS 40 CFR Part 60, §60.48c, the owner or operator of this source shall submit notification of the date of boiler EU ID #2 construction, anticipated startup, and actual startup, as provided by §60.7 of this part.
 - (4) Pursuant to NSPS 40 CFR Part 60, §60.48c(g), the owner or operator of this source shall keep monthly records of the amount of wood combusted in the boiler EU ID #1. These records shall be maintained at the source for a period of two (2) years following the date of such record.
 - (5) Pursuant to NSPS 40 CFR Part 60, §60.48c(g) the owner or operator of this source shall keep monthly records of the amount of natural gas combusted in the boiler EU ID #2. These records shall be maintained at the source for a period of two (2) years following the date of such record.
 - (6) Pursuant to NSPS 40 CFR Part 60, §60.42c, boilers EU ID #1 and EU ID#2 are not subject to SO₂ requirements of this NSPS because these two boilers do not burn coal or oil.
 - (7) Pursuant to NSPS 40 CFR Part 60, §60.43c(b) and (c), boiler EU ID #1 is not subject to particulate matter requirements of this NSPS because it burns only wood and its heat input is lower than 30 MMBtu/hr.
 - (8) Pursuant to NSPS 40 CFR Part 60, §60.43c, boiler EU ID #2 is not subject to particulate matter requirements of this NSPS because its heat input is lower than 30 MMBtu/hr and it will not burn wood, coal, or oil.
- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR 63, Subpart DDDDD, 326 IAC 14) are not included in this registration for the 14.5 MMBtu/hr wood-fired boiler (EU ID #1) and the 11.5 MMBtu/hr natural gas-fired boiler (EU ID #2) because this source is not a major source of HAP, as defined in 40 CFR 63.2.

State Rule Applicability

326 IAC 2-3 (Emission Offset)

- (a) This source is located in Marion County. Marion County has been designated as non-attainment for PM_{2.5} in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in PM_{2.5} Nonattainment Areas" authored by Steve Page, Director of OAQPS, until EPA promulgates the PM_{2.5} major NSR regulations, states should assume that a major

stationary source's PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS.

The modification proposed in this Registration Revision 095-21803-00146 will result in an increase in the potential to emit of PM10 of 6.99 tons per year. This modification does not trigger Emission Offset because the increase in potential to emit of PM10 due to this modification (6.99 tons per year) is less than 100 tons per year. The potential to emit of PM10 from the entire source after this modification will be less than 100 tons per year. Therefore, this source is a minor source under 326 IAC 2-3 (Emission Offset).

- (b) The modification proposed in this Registration Revision 095-21803-00146 will result in an increase in the potential to emit of VOC of 0.41 tons per year and an increase in the potential to emit of NOx of 5.30 tons per year. This modification does not trigger Emission Offset review because the increase in potential to emit of VOC and NOx due to this modification is less than 100 tons per year. The potential to emit of VOC and NOx from the entire source after this modification will be less than 100 tons per year. Therefore, this source is a minor source under 326 IAC 2-3 (Emission Offset).

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The modification proposed in this Registration Revision 095-21803-00146 will result in an increase in the potential to emit of PM10, SO₂ and CO of 6.99 tons per year, 0.6 tons per year, and 14.5 tons per year, respectively. This modification does not trigger PSD review because the increase in potential to emit of each regulated attainment pollutant due to this modification is less than 250 tons per year. The potential to emit of each regulated attainment pollutant from the entire source after this modification will be less than 250 tons per year. Therefore, this source is a minor source under 326 IAC 2-2 (PSD).

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)

This source has not installed any new major sources of HAPs after July 27, 1997. Therefore this source is not subject to the requirements of 326 IAC 2-4.1.

326 IAC 2-6 (Emission Reporting)

This source is located in Marion County, is not required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, and does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year. Therefore, this source is subject to the requirements of 326 IAC 2-6-5.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6.5-1 (Particulate Matter Limitations)

This source is located in Marion County. However the potential to emit of particulate from the entire source is less than one-hundred (100) tons per year, the actual emissions of particulate matter are less than ten (10) tons per year, and this source is not a specifically listed source in 326 IAC 6.5-6. Therefore, the requirements of 326 IAC 6.5 do not apply.

326 IAC 6-2-4 (Particulate Matter Limitations for Sources of Indirect Heating)

The boiler EU ID #1 will be modified after September 21, 1983. The boiler EU ID #2 was constructed after September 21, 1983. Both of these boilers are used for indirect heating. The heat produced in the boilers is used in the veneer dryers.

Pursuant to 326 IAC 6-2-4(a), indirect heating facilities constructed or modified after September 12, 1983, shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where Pt = emission rate limit (lbs/MMBtu)
Q = total source heat input capacity (MMBtu/hr)

(a) For Boiler EU ID #2, the emission rate limit calculated from the equation above equals:

$$Pt = \frac{1.09}{(9.0 + 11.5)^{0.26}} = 0.497 \text{ lbs/MMBtu}$$

The particulate matter emissions from boiler EU ID #2 shall not exceed 0.497 lbs/MMBtu heat input. Based on AP-42 emission factors, the boiler will be able to comply with this limit.

(b) For Boiler EU ID #1, the emission rate limit calculated from the equation above equals:

$$Pt = \frac{1.09}{(14.5 + 11.5)^{0.26}} = 0.467 \text{ lbs/MMBtu}$$

The particulate matter emissions from boiler EU ID #1 shall not exceed 0.467 lbs/MMBtu heat input. Based on AP-42 emission factors, the boiler will be able to comply with this limit.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

(a) Pursuant to 326 IAC 6-3-2(e), the particulate from the cutoff saw (Whirlwind) shall be limited to 9.5 pounds per hour, based on a process weight rate of 7,000 pounds per hour.

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Calculations show that the cutoff saw will be able to comply with this limit.

(b) The two (2) veneer dryers do not create particulate. Therefore, 326 IAC 6-3-2 does not apply.

326 IAC 7-1 (Sulfur Dioxide Emission Limitations)

The potential to emit of each individual emissions unit is less than twenty-five (25) tons per year or ten (10) pounds per hour of Sulfur Dioxide. Therefore, the requirements of 326 IAC 7-1 do not apply.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

The Permittee has no individual facility with the potential to emit more than twenty-five (25) tons per year of VOCs. The PTE of VOC from each of the veneer dryers is less than 25 tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply.

326 IAC 8-2 (Volatile Organic Compounds)

The Permittee does not apply surface coatings containing VOCs to the wood veneers. Therefore, the requirements of 326 IAC 8-2 do not apply.

326 IAC 12 (New Source Performance Standards)

The boilers (EU ID #1 and EU ID #2) are subject to the recordkeeping requirements of 326 IAC 12 because they each have a heat input capacity greater than 10 MMBtu/hr but less than 100 MMBtu/hr, were constructed after June 9, 1989, and are defined as a "steam generating unit" pursuant to 40 CFR 60.41c. Pursuant to this rule, the Permittee shall keep daily records of the fuel burned in the boilers. 326 IAC 12 incorporates by reference a version of 40 CFR 60, Subpart Dc that predates the revisions made to 40 CFR 60, Subpart Dc on February 27, 2006.

Conclusion

This veneer manufacturing operation shall be subject to the conditions of the attached Revised Registration 097-21803-00146.

**Appendix A: Emissions Calculations
External Combustion Boiler
Wood Waste Combustion - Wet Wood
Emissions Before Modification**

Company Name: Miller Veneers Inc.
 Address: 3724 East 13th Street, Indianapolis, Indiana 46201
 Registration No.: 097-21803-00146
 Reviewer: ERG/ST
 Date: November 15, 2006

Maximum Capacity (MMBtu/hour)	9.0
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Emission Factor (lbs/MMBtu)	Pollutant						
	PM	PM10	PM2.5	SO ₂	NOx	VOC	CO
Potential to Emit (tons/year)	13.01	11.4	9.9	0.99	8.67	0.67	23.7

Emission Factor (lbs/MMBtu)	Selected Hazardous Air Pollutants					
	Acrolein	Benzene	Formaldehyde	Hydrogen Chloride	Styrene	Total
Potential to Emit (tons/year)	1.6E-01	1.7E-01	1.7E-01	7.5E-01	7.5E-02	1.3E+00

This boiler burns wet wood with a moisture content of 30 %. No bark is burned.
 Emission factors are from AP-42 Chapter 1.6, Tables 1.6-1, 1.6-2 and 1.6-3, SCC 1-03-009-03 (9/03).
 Emission factors for HAPs are from AP-42 Chapter 1.6, Table 1.6-4, SCC 1-03-009-03 (9/03).
 These factors include the five HAPs with the highest AP-42 emission factors.

Methodology

Potential to Emit (tons/year) = Maximum Capacity (MMBtu/hour) x Emission Factor (lbs/MMBtu) x 8760 (hours/year) x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations
External Combustion Boiler
Wood Waste Combustion - Wet Wood
Emissions After Modification**

Company Name: Miller Veneers Inc.
 Address: 3724 East 13th Street, Indianapolis, Indiana 46201
 Registration No.: 097-21803-00146
 Reviewer: ERG/ST
 Date: November 15, 2006

Maximum Capacity (MMBtu/hour)	14.5	Control Efficiency of Cyclone (%)	90%
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	Pollutant						
	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO
Emission Factor (lbs/MMBtu)	0.33	0.29	0.25	0.025	0.22	0.017	0.60
Potential to Emit Before Controls (tons/year)	21.0	18.4	15.9	1.59	14.0	1.08	38.1
Potential to Emit After Controls (tons/year)	2.10	1.84	1.59	1.59	14.0	1.08	38.1

	Selected Hazardous Air Pollutants					
	Acrolein	Benzene	Formaldehyde	Hydrogen Chloride	Styrene	Total
Emission Factor (lbs/MMBtu)	4.0E-03	4.2E-03	4.4E-03	1.9E-02	1.9E-03	3.4E-02
Potential to Emit (tons/year)	0.25	0.27	0.28	1.21	0.12	2.13

This boiler burns wet wood with a moisture content of 30 %. No bark is burned.
 Emission factors are from AP-42 Chapter 1.6, Tables 1.6-1, 1.6-2 and 1.6-3, SCC 1-03-009-03 (9/03).
 Emission factors for HAPs are from AP-42 Chapter 1.6, Table 1.6-4, SCC 1-03-009-03 (9/03).
 These factors include the five HAPs with the highest AP-42 emission factors.

Methodology

Potential to Emit (tons/year) = Maximum Capacity (MMBtu/hour) x Emission Factor (lbs/MMBtu) x 8760 (hours/year) x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
Small Industrial Boilers MM BTU/HR <100
Boiler B-2**

Company Name: Miller Veneers Inc.
Address: 3724 East 13th Street, Indianapolis, Indiana 46201
Registration No.: 097-21803-00146
Reviewer: ERG/ST
Date: November 15, 2006

Heat Input Capacity MMBtu/hour
11.5

Potential Throughput MMCF/year
101

	Pollutant						
	PM*	PM10*	SO ₂	NOx **	VOC	CO	HAPs
Emission Factor (lbs/MMCF)	1.9	7.6	0.6	100.0	5.5	84.0	1.89
Potential to Emit (tons/year)	0.096	0.383	0.030	5.037	0.277	4.231	0.095

Emission factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (3/98)

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Methodology

Potential Throughput (MMCF/year) = Heat Input Capacity (MMBtu/hour) x 8,760 hours/year x 1 MMCF/1,000 MMBtu

Potential to Emit (tons/year) = Throughput (MMCF/year) x Emission Factor (lbs/MMCF) x 1 ton/2,000 lbs

Appendix A: Emission Calculations
 Particulate Emissions From Cut Off Saw

Company Name: Miller Veneers Inc.
 Address: 3724 East 13th Street, Indianapolis, Indiana 46201
 Registration No.: 097-21803-00146
 Reviewer: ERG/ST
 Date: November 15, 2006

Potential to Emit from Cut Off Saw

Emission Unit ID	Process Weight Rate (lbs/hour)	Wood Chips Created from Saw Operation* (lbs/day)	Weight % PM/PM10	Collection/ Control Efficiency (%)	Uncontrolled PTE of PM/PM10 (lbs/hour)	Uncontrolled PTE of PM/PM10 (tons/year)	326 IAC 6-3-2 Allowable PM Emission Rate (lbs/hour)
Whirlwind	7,000	213	5%	95.0%	1.06	1.94	9.49

Maximum capacity of cutting of logs on the saw is bottlenecked by the need to steam the logs overnight prior to slicing on the veneer machine. Given the capacity of the steam vats, the time needed for steaming, and the capacity of the veneer machine, the source can process 175 logs per ten hour work day.

* Based on information reported by source, the saw cuts 175 hardwood logs of 15 inch diameter in half per ten hour work day. The saw kerf is 5/16 inch wide. Saw chips fall to the floor, are swept into a hopper (in the floor), and are then pneumatically conveyed to a silo (venting inside the building). Wood waste from cut off saw and veneering operations is burned in the boiler. Steam from the boiler is steaming the logs prior to slicing on the veneer machine. The chips from the saw are approximately 5/16 inch to 1/16 inch in diameter. Conservatively assume that 5% of the mass of chips is particulate matter (fine particulate with an aerodynamic diameter less than 100 microns). Assume density of wood is 38 pounds per cubic foot. Assume all PM is equal to PM10.

Assume all PM/PM10 escapes prior to collection of the saw chips in the hopper.

Methodology

Wood Chips Created from Saw Operation (lbs/day) = 175 logs x 3.1416 x ((15 inches/12 inches/foot)/2)² x ((5/16)/12) ft x 38 (lbs/ft³)

PTE of PM/PM10 Uncontrolled (tons/year) = Wood Chips (lbs/day) x Weight % PM/PM10 x 365 days/year x 1 ton/2000 lbs

PTE of PM/PM10 Controlled (tons/year) = Wood Chips (lbs/day) x Weight % PM/PM10 x (1 - Control Efficiency %) x 365 days/year x 1 ton/2000 lbs

326 IAC 6-3-2 Allowable PM Emission Rate (lbs/hour) = 4.1 x process weight rate (tons/hour)^{0.67}

Appendix A: Emission Calculations
Emissions From the Two (2) Veneer Dryers

Company Name: Miller Veneers Inc.
Address: 3724 East 13th Street, Indianapolis, Indiana 46201
Registration No.: 097-21803-00146
Reviewer: ERG/ST
Date: November 15, 2006

The veneer dryers use process heat generated by the wood boiler and gas boiler.

Emission Unit ID	Combined Throughput Rate (ft ² /day)	VOC Emission Factor (lbs/1,000 ft ²)	CO Emission Factor (lbs/1,000 ft ²)	HAPs Emission Factor (lbs/1,000 ft ²) *	PTE of VOC (tons/year)	PTE of CO (tons/year)	PTE of HAPs (tons/year)
Veneer Dryer	29,207	1.0	0.1078	0.1401	5.3	0.57	0.75
Veneer Dryer	29,207	1.0	0.1078	0.1401	5.3	0.57	0.75

Based on information reported by source, the veneer lathe slices 175 hardwood logs of 15 inch diameter and ten foot in length per ten hour work day. Assume 15% of the log is waste (too small to be sliced into veneer).

* HAPs consist of Methanol, Acetaldehyde, Formaldehyde, Methyl Isobutyl Ketone, and Phenol.

Emission factors for VOC, CO and HAPs are from AP 42, Chapter 10.5-6, Tables 10.5-2 and 10.5-3 (SCC 3-07-007-56, 3-07-007-57) (1/02).

The emissions of particulate from the indirect heated veneer dryers are negligible. AP 42 lists no emission factors for hardwood veneer dryers. Emissions from hardwood veneer dryers are qualitatively different in type and amount from the emissions from softwood dryers used in the plywood industry (40 CFR 63.2264(b)). Testing on similar hardwood veneer dryers in Indiana (see F081-12122-00014) revealed no particulate emissions.

Methodology

Throughput Rate (ft²/day) = 175 logs/day x 10 ft x (Pi x (15/12/2)²) ft² x (1- waste %) x 12 in/ft / (3/8 in)

PTE (tons/year) = Throughput Rate (ft²/day) x Emission Factor (lbs/1,000 ft²) x 1/1,000 ft² x 365 days/year x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations
Summary**

Company Name: Miller Veneers, Inc.
 Address: 3724 East 13th Street, Indianapolis, Indiana 46201
 Registration No.: 097-21803-00146
 Reviewer: ERG/ST
 Date: November 15, 2006

	Source Modification - Potential to Emit (tons/year)							
	PM	PM10	PM2.5	SO₂	NOx	VOC	CO	HAPs
Before Modification	15.04	13.8	10.2	1.02	13.7	6.3	28.5	2.16
After Modification	23.0	20.7	16.3	1.62	19.0	6.7	42.9	2.97
Emission Increase	7.95	6.99	6.02	0.60	5.30	0.41	14.5	0.81

After Modification

	Potential to Emit of Entire Source Before Controls (tons/year)							
	PM	PM10	PM2.5	SO₂	NOx	VOC	CO	HAPs
Wood Boiler	21.0	18.4	15.9	1.59	14.0	1.08	38.1	2.13
Gas Boiler	0.10	0.38	0.38	0.03	5.04	0.28	4.23	0.10
Saw	1.94	1.94	1.94	0	0	0	0	0
Veneer Dryers	0	0	0	0	0	10.7	1.15	1.49
Totals	23.0	20.7	18.2	1.62	19.0	12.0	43.5	3.72

After Modification

	Emissions After Controls (tons/year) *							
	PM	PM10	PM2.5	SO₂	NOx	VOC	CO	HAPs
Wood Boiler	2.10	1.84	1.59	1.59	14.0	1.08	38.1	2.13
Gas Boiler	0.10	0.38	0.38	0.03	5.04	0.28	4.23	0.10
Saw	1.94	1.94	1.94	0	0	0	0	0
Veneer Dryers	0	0	0	0	0	10.7	1.15	1.49
Totals	4.13	4.16	3.91	1.62	19.0	12.0	43.5	3.72

* The cyclones controlling the wood boilers are not federally enforceable.