



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: August 14, 2008

RE: MasterBrand Cabinets, Inc., Plant 5 / 037-26637-00111

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

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, Suite N 501E, 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 Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FN-REGIS.dot 1/2/08



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REGISTRATION OFFICE OF AIR QUALITY

**MasterBrand Cabinets, Inc., Plant 5
11th Street and Geiger Street
Huntingburg, Indiana 47542**

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

Registration No. 037-26637-00111	
Issued by: <i>Original document signed by</i> Alfred C. Dumauual, Ph. D., Section Chief Permits Branch Office of Air Quality	Issuance Date: August 14, 2008

SECTION A

SOURCE SUMMARY

This registration is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Registrant should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Registrant to obtain additional permits pursuant to 326 IAC 2.

A.1 General Information

The Registrant owns and operates a stationary wood cabinet manufacturing facility.

Source Address:	11th Street and Geiger Street, Huntingburg, IN 47542
Mailing Address:	P.O. Box 420, Jasper, IN 47547
General Source Phone Number:	(812) 482-2527
SIC Code:	2434
County Location:	Dubois County
Source Location Status:	Nonattainment for PM 2.5 standard Attainment for all other criteria pollutants
Source Status:	Registration

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) wood cabinet manufacturing facility, identified as WW-1, constructed in 1986, with a maximum throughput capacity of 74,081 square feet per hour, equipped with four (4) integral baghouses for particulate control (BH-1, BH-2, BH-3, and BH-4), exhausting to stacks W-1, W-2, W-3, and W-4. Baghouse BH-4 was replaced in 2002.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:
 - (1) One (1) natural gas-fired boiler, constructed in 1996, with a maximum heat input capacity of 0.02 million BTU per hour, identified as BLR-1;
 - (2) Two (2) natural gas-fired boilers, constructed in 1994, each having a maximum heat input capacity of 0.625 million BTU per hour, identified as BLR-2 and BLR-3; and
 - (3) Natural gas-fired space heaters with a combined maximum heat input capacity of 2.925 million BTU per hour.

SECTION B

GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this registration shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Effective Date of Registration [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this registration is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

B.3 Registration Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation), this registration to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this registration.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this registration shall not require revocation of this registration.
- (d) For any cause which establishes in the judgment of IDEM the fact that continuance of this registration is not consistent with purposes of this article.

B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to Registration No. 037-26637-00111 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this registration.

B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)] [326 IAC 2-5.5-4(a)(3)]

Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this registration.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003

Indianapolis, IN 46204-2251

- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

B.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]

Pursuant to 326 IAC 2-5.5-6(a), an application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

B.7 Registrations [326 IAC 2-5.1-2(i)]

Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

C.1 Opacity [326 IAC 5-1]

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 registration:

- (a) Opacity shall not exceed an average of thirty percent (30%) in 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.

C.2 Fugitive Dust Emissions [326 IAC 6-4]

The Registrant shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

SECTION D.1

OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

One (1) wood cabinet manufacturing facility, identified as WW-1, constructed in 1986, with a maximum throughput capacity of 74,081 square feet per hour, equipped with four (4) integral baghouses for particulate control (BH-1, BH-2, BH-3, and BH-4), exhausting to stacks W-1, W-2, W-3, and W-4. Baghouse BH-4 was replaced in 2002.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.1.1 Particulate Emission Limitations [326 IAC 6-3-2]

The allowable PM emission rate from the woodworking cabinet manufacturing facility shall be limited by the following:

The particulate from the woodworking cabinet manufacturing facility, identified as WW-1, equipped with four (4) baghouses for particulate control (BH-1, BH-2, BH-3, and BH-4), exhausting to stacks W-1, W-2, W-3, and W-4, shall not exceed 31.5 pounds per hour when operating at a process weight of 42,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

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:

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

The baghouses, identified as BH-1, BH-2, BH-3, and BH-4, are considered to be integral to the process and shall be in operation at all times the woodworking cabinet manufacturing facility is in operation, in order to comply with this limit.

Compliance Determination Requirements [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

D.1.2 Particulate Control

- (a) The baghouses for particulate control shall be in operation and control emissions from the woodworking facility at all times that the woodworking facility is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
and IDEM Southwest Regional Office**

**REGISTRATION
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

Company Name:	MasterBrand Cabinets, Inc., Plant 5
Address:	11th Street and Geiger Street
City:	Huntingburg, Indiana 47542
Phone Number:	(812) 482-2527
Registration No.:	037-26637-00111

I hereby certify that MasterBrand Cabinets, Inc. is :

still in operation.

I hereby certify that MasterBrand Cabinets, Inc. is :

no longer in operation.

in compliance with the requirements of Registration No. 037-26637-00111.

not in compliance with the requirements of Registration No. 037-26637-00111.

Authorized Individual (typed):
Title:
Signature:
Phone Number:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

**Indiana Department of Environmental Management
Office of Air Quality
and Southwest Regional Office**

**Technical Support Document (TSD) for a Federally Enforceable State
Operating Permit (FESOP) Transitioning to a Registration**

Source Description and Location

Source Name:	MasterBrand Cabinets, Inc., Plant 5
Source Location:	11th Street and Geiger Street, Huntingburg, IN 47542
County:	Dubois
SIC Code:	2434
Registration No.:	037-26637-00111
Permit Reviewer:	Summer Keown

On June 10, 2008, the Office of Air Quality (OAQ) has received an application from MasterBrand Cabinets related to the transition of a FESOP to a Registration for their wood cabinet manufacturing facility.

Existing Approvals

The source has been operating under FESOP No. 037-23362-00111, issued on May 15, 2007.

Due to this application, the source is transitioning from a FESOP to a Registration.

County Attainment Status

The source is located in Dubois County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, for the 8-hour standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for PM2.5.	

- (a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) 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 NOx emissions are considered when evaluating the rule applicability relating to ozone. Dubois County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) PM2.5
Dubois County has been classified as nonattainment for PM2.5 in 70 FR 943 dated January 5, 2005. On May 8th, 2008, U.S. EPA promulgated specific New Source Review rules for PM2.5 emissions, and the effective date of these rules was July 15th, 2008. Therefore, direct PM2.5 and SO2 emissions were reviewed pursuant to the requirements of Nonattainment New Source

Review, 326 IAC 2-1.1-5. See the State Rule Applicability -- Entire Source section.

- (c) Other Criteria Pollutants
Dubois County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-5.5 (Registrations) applicability.

Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by MasterBrand Cabinets, Inc. on June 10, 2008, relating to the transition of their FESOP to a Registration.

The source consists of the following existing emission unit(s):

- (a) One (1) wood cabinet manufacturing facility, identified as WW-1, constructed in 1986, with a maximum throughput capacity of 74,081 square feet per hour, equipped with four (4) integral baghouses for particulate control (BH-1, BH-2, BH-3, and BH-4), exhausting to stacks W-1, W-2, W-3, and W-4. Baghouse BH-4 was replaced in 2002.
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:
- (1) One (1) natural gas-fired boiler, constructed in 1996, with a maximum heat input capacity of 0.02 million BTU per hour, identified as BLR-1;
 - (2) Two (2) natural gas-fired boilers, constructed in 1994, each having a maximum heat input capacity of 0.625 million BTU per hour, identified as BLR-2 and BLR-3; and
 - (3) Natural gas-fired space heaters with a combined maximum heat input capacity of 2.925 million BTU per hour.

"Integral Part of the Process" Determination

The Permittee has submitted the following information to justify why the four (4) baghouses, identified as BH-1, BH-2, BH-3 and BH-4, controlling PM and PM10 emissions from the woodworking facility should be considered an integral part of the process:

- (a) The primary purpose of the dust collection baghouses is to allow continuous operation of the woodworking equipment. Specifically, the dust collection baghouses keep the cutting surface clear of wood chips that would clog the equipment and would require that the production line be shut down in order to clear the equipment.
- (b) The baghouses are used to control dust so that workers can work in the area without damage to their health. These baghouses would be in use even without the air quality regulations, as there are applicable Occupational Safety and Health Administration (OSHA) Employee Safety-Fire and Explosion Hazard regulations to ensure fire and employee safety.

IDEM, OAQ has evaluated the justification and agreed that the baghouses will be considered as an integral part of the woodworking operation. Therefore, the permitting level will be determined using the potential to emit after the baghouses. Particulate from the woodworking operation shall be controlled by

the baghouses at all times that the woodworking operation is in operation, and the Permittee shall operate the baghouses in accordance with manufacturer's specifications.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A, pages 1 through 4, of this TSD for detailed emission calculations.

Permit Level Determination – Registration

The following table reflects the unlimited potential to emit (PTE) of the entire source after the integral baghouse controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/Emission Unit	Potential To Emit of the Entire Source (tons/year)								
	PM	PM10 *	PM2.5	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Woodworking	7.40	7.40	7.40	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas Combustion	0.03	0.12	0.12	0.01	1.53	0.08	1.29	0.03	0.03 (hexane)
Total PTE of Entire Source	7.43	7.52	7.52	0.01	1.53	0.08	1.29	0.03	0.03 (hexane)
Exemptions Levels	5	5	5	10	10	5	25	25	10
Registration Levels	25	25	25	25	25	25	100	25	10
negl. = negligible * Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".									

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of PM and PM10 are within the ranges listed in 326 IAC 2-5.5-1(b)(1). The PTE of all other regulated criteria pollutants are less than the ranges listed in 326 IAC 2-5.5-1(b)(1). Therefore, the source is subject to the provisions of 326 IAC 2-5.5 (Registrations). A Registration will be issued.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(40 CFR Part 63) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Wood Furniture Manufacturing Operations, 40 CFR 63, Subpart JJ (326 IAC 20-14), are not included in the permit, since the woodworking facility is not located at a plant site that is a major source.
- (c) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

- (d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the source:

- (a) 326 IAC 2-5.5 (Registrations)
Registration applicability is discussed under the Permit Level Determination – Registration section above.
- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (c) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (d) 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:
 - (1) Opacity shall not exceed an average of thirty percent (30%) in 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.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.

Woodworking Operation

IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

The allowable PM emission rate from the woodworking cabinet manufacturing facility shall be limited by the following:

The particulate from the woodworking cabinet manufacturing facility, identified as WW-1, equipped with four (4) integral baghouses for particulate control (BH-1, BH-2, BH-3, and BH-4), exhausting to stacks W-1, W-2, W-3, and W-4, shall not exceed 31.5 pounds per hour when operating at a process weight of 42,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

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:

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

The baghouses, identified as BH-1, BH-2, BH-3, and BH-4, are considered to be integral to the process and shall be in operation at all times the woodworking cabinet manufacturing facility is in operation, in order to comply with this limit.

326 IAC 6.5-1 (Particulate Matter Emission Limitations)

This source is located in DuBois County and has the potential to emit less than 100 tons per year of PM. Therefore the source is not subject to 326 IAC 6.5-1.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on June 10, 2008.

The and operation of this source shall be subject to the conditions of the attached proposed Registration No. 037-26637-00111. The staff recommends to the Commissioner that this Registration be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Summer Keown at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 232-8427 or toll free at 1-800-451-6027 extension 2-8427.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

**Appendix A: Emission Calculations
Emissions Summary**

Company Name: MasterBrand Cabinets, Inc., Plant 5
Address: 11th Street and Geiger Street, Huntingburg, Indiana 47542
MSOP: M037-26637-00111
Reviewer: Summer Keown
Date: July 17, 2008

Unlimited Potential to Emit (tons/yr)

	PM	PM10	PM2.5	SO ₂	NO _x	VOC	CO	HAPs
Woodworking*	7.40	7.40	7.40	--	--	--	--	--
Natural Gas Combustion	0.03	0.12	0.12	0.01	1.53	0.08	1.29	0.03
Total	7.43	7.52	7.52	0.01	1.53	0.08	1.29	0.03

"--" represents emission values equal to zero

*The baghouses controlling emissions for the woodworking operation have been determined by IDEM to be integral to the process. Therefore, only the potential emissions after controls are considered when determining the permit level.

**Appendix A: Emission Calculations
Emissions From Natural Gas Combustion**

Company Name: MasterBrand Cabinets, Inc., Plant 5
Address: 11th Street and Geiger Street, Huntingburg, Indiana 47542
MSOP: M037-26637-00111
Reviewer: Summer Keown
Date: July 17, 2008

Total Heat Input Capacity MMBtu/hr 3.57

Potential Throughput MMscf/yr 30.7
--

Emission Factor (lbs/MMscf)	Pollutant							HAPs
	PM*	PM10*	PM2.5*	SO ₂	NO _x **	VOC	CO	
Potential to Emit (tons/yr)	1.9	7.6	7.6	0.6	100	5.5	84.0	1.80
	0.03	0.12	0.12	0.01	1.53	0.08	1.29	0.03

* PM emission factor is filterable PM only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.

**Emission factor for NO_x (Uncontrolled) = 100 lb/MMscf.

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (7/98).

All Emission factors are based on normal firing.

Methodology

Potential Throughput (MMscf/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMscf/1,020 MMBtu

PTE (tons/yr) = Potential Throughput (MMscf/yr) x Emission Factor (lbs/MMscf) x 1 ton/2,000 lbs

The 3.57 MMBtu/hr heat input capacity is the sum of all natural gas-fired emission units at the source.

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions**

Company Name: MasterBrand Cabinets, Inc., Plant 5
Address City IN Zip: 11th Street and Geiger Street, Huntingburg, Indiana 47542
Permit Number: M037-26637-00111
Reviewer: Summer Keown
Date: July 17, 2008

Heat Input Capacity
MMBtu/hr

3.57

Potential Throughput
MMCF/yr

31.3

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.284E-05	1.876E-05	1.173E-03	2.815E-02	5.316E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	7.818E-06	1.720E-05	2.189E-05	5.942E-06	3.284E-05

Methodology is the same as page 1.

Total HAPs: 0.03

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emission Calculations
Emissions From Woodworking**

Company Name: MasterBrand Cabinets, Inc., Plant 5
Address: 11th Street and Geiger Street, Huntingburg, Indiana 47542
Registration No.: M037-26637-00111
Reviewer: Summer Keown
Date: July 17, 2008

Unit	Baghouse ID	*Outlet Grain Loading (gr/dscf)	Flow Rate (acfm)	Stack Temp (°F)	Flow Rate (dscfm)	Control Efficiency %	PM Emissions**	
							PM/PM10/PM2.5 Emissions After Integral Controls (lbs/hr)	PM/PM10/PM2.5 Emissions After Integral Controls (tons/yr)
WW-1	BH-1	0.00118	18,000	70	17,932	99.0%	0.18	0.79
	BH-2	0.00118	34,330	70	34,200	99.0%	0.35	1.52
	BH-3	0.00118	62,970	70	62,731	99.0%	0.63	2.78
	BH-4	0.000981	62,970	70	62,731	99.0%	0.53	2.31
Total							1.69	7.40

*The outlet grain loading (gr/dscf) above is provided by the source and is based on stack test results (April 16, 2003).

**Assume PM emissions = PM10 emissions = PM2.5 emissions

The baghouses controlling emissions from the woodworking operation are considered integral to the process. Therefore, only the controlled emissions will be considered for determining the permit level.

Methodology

Flow Rate (dscfm) = Flow Rate (acfm) x (460 mmHg x 68°F)/(460 mmHg x 70°F)

Controlled PM/PM10 Emissions (lbs/hr) = Outlet Grain Loading (gr/dscf) x Flow Rate (dscfm) x 60 min/hr x 1 lb/7,000 grains

Controlled PM/PM10 Emissions (tons/yr) = Controlled PM10 Emissions (lbs/hr) x 8,760 hrs/yr x 1 ton/2,000 lbs