



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

To: Interested Parties

Date: February 25, 2015

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

Source Name: MasterBrand Cabinets

Permit Level: Title V - Significant Permit Modification

Permit Number: 039 - 34964 - 00014

Source Location: 1002 Eisenhower Drive North, Goshen, Indiana

Type of Action Taken: Modification at an existing source

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the matter referenced above.

The final decision is available on the IDEM website at: <http://www.in.gov/apps/idem/caats/>
To view the document, select Search option 3, then enter permit 34964.

If you would like to request a paper copy of the permit document, please contact IDEM's central file room:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

(continues on next page)

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require 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 Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) 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.

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

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.



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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

Mr. John Horwarth
MasterBrand Cabinets, Inc.
PO Box 595
Goshen, IN 46527

February 25, 2015

Re: 039-34964-00014 Significant Permit Modification
to Part 70 Renewal No. T039-34286-00014

Dear Horwarth:

MasterBrand Cabinets, Inc. was issued Part 70 Operating Permit Renewal No. T039-34286-00014 on December 10, 2014 for a stationary wood furniture manufacturing operation located at 1002 Eisenhower Drive North, Goshen, Indiana 46526. An application to modify this permit was received on September 3, 2014. Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

Please find attached the entire Part 70 Operating Permit as modified. The permit references the below listed attachments. Since these attachments have been provided in previously issued approvals for this source, IDEM OAQ has not included a copy of these attachments with this modification:

Attachment A: 40 CFR 63, Subpart JJ
Attachment B: 40 CFR 63, Subpart DDDD
Attachment C: 40 CFR 60, Subpart JJJJ
Attachment D: 40 CFR 63, Subpart ZZZZ

Previously issued approvals for this source containing these attachments are available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. Federal rules under Title 40 of United States Code of Federal Regulations may also be found on the U.S. Government Printing Office's Electronic Code of Federal Regulations (eCFR) website, located on the Internet at: http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40tab_02.tpl.

A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Brian Wright, of my staff, at 317-234-6544 or 1-800-451-6027, and ask for extension 4-6544.

Sincerely,

Nathan C. Bell, Section Chief
Permits Branch
Office of Air Quality

Attachment(s): Updated Permit, Technical Support Document and Appendix A
NB/BW

cc: File - Elkhart County
Elkhart County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
IDEM Northern Regional Office



A State that Works



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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

Part 70 Operating Permit Renewal

OFFICE OF AIR QUALITY

**MasterBrand Cabinets, Inc.
1002 Eisenhower Drive North
Goshen, Indiana 46526**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

| | |
|---|--|
| Operation Permit No.: T039-34286-00014 | |
| Issued by: Original Signed Nathan Bell, Section Chief Permits Branch, Office of Air Quality | Issuance Date: December 12, 2014 Expiration Date: December 12, 2019 |

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|--|--|
| First Significant Modification No.: 039-34964-00014 | |
| Issued by:  Nathan Bell, Section Chief, Permits Branch Office of Air Quality | Issuance Date: February 25, 2015 Expiration Date: December 12, 2019 |

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SECTION A SOURCE SUMMARY

This permit 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 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee 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 Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary wood furniture manufacturing operation.

| | |
|------------------------------|--|
| Source Address: | 1002 Eisenhower Drive North, Goshen, Indiana 46526 |
| General Source Phone Number: | 574-535-9450 |
| SIC Code: | 2434 (Wood Kitchen Cabinets) |
| County Location: | Elkhart |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Part 70 Operating Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories |

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

- (a) Woodworking Operations consisting of:
- (1) One (1) woodworking cell, identified as WW1, constructed in 2004, controlled by a 72,000 cubic feet per minute baghouse, identified as CC1, and exhausting either internally or to stack SCC1.
 - (2) One (1) woodworking cell, identified as WW2, constructed in 2001, controlled by a 72,000 cubic feet per minute baghouse, identified as CC2, and exhausting either internally or to stack SCC2.
 - (3) One (1) woodworking cell, identified as WW4, constructed in 2004, controlled by a 46,700 cubic feet per minute baghouse, identified as CC4, and exhausting either internally or to stack SCC4.
 - (4) One (1) woodworking cell, identified as WW5, constructed in 1988, controlled by a 46,700 cubic feet per minute baghouse, identified as CC5, and exhausting either internally or to stack SCC5.
 - (5) One (1) woodworking cell, identified as WW6, constructed in 1989, controlled by a 46,700 cubic feet per minute baghouse, identified as CC6, and exhausting either internally or to stack SCC6.
- (b) Eighteen (18) spray booths C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F38, F23, F30, F51, and FM1 with the following descriptions:
- Finishing - Customs Line
- (1) One (1) pre-stain booth, identified as C2, with a maximum rating of 25 units per hour, with particulate emissions controlled by dry filters, exhausting at Stack ID SC2;

Finishing - Hang Line

- (2) Three (3) hanging line stain booths, identified as H1, H2, and H3, with a total maximum rating of 1,125 units per hour (375 each), with particulate emissions controlled by dry filters, exhausting at Stacks ID SH1, SH2, and SH3;
- (3) Two (2) hanging line sealer booths, identified as H5 and H6, with a total maximum rating of 750 units per hour (375 each), with particulate emissions controlled by dry filters, exhausting at Stacks ID SH5 and SH6;
- (4) Two (2) hanging line topcoat booths, identified as H9 and H10, with a total maximum rating of 750 units per hour (375 each), with particulate emissions controlled by dry filters, exhausting at Stacks SH9 and SH10;
- (5) One (1) white parts booth identified as H12, with a maximum rating of 75 units per hour, with particulate emissions controlled by dry filters, exhausting at Stacks ID SH12a and SH12b;
- (6) One (1) hanging line parts booth identified as H19, with a maximum rating of 25 units per hour, with particulate emissions controlled by dry filters, exhausting at Stack ID SH19;

Finishing - Flat Line (UV Line)

- (7) One (1) automated stain line, identified as F3, with a maximum capacity of coating 1000 units per hour, utilizing a high volume low pressure spray application, with particulate emissions controlled by dry filters, and exhausting to stacks SF3, SF4a, and SF4b;
- (8) One (1) automated stain line, identified as F9, with a maximum capacity of coating 1000 units per hour, consisting of one (1) enclosed spray booth utilizing a high volume low pressure spray application system with particulate emissions controlled by dry filters, exhausting to stack SF9;
- (9) Two (2) automated varnish lines, identified as F15 and F38, each with a maximum capacity of coating 1000 units per hour, (2000 total) utilizing an airless spray application, with particulate emissions controlled by water curtain systems, and exhausting to stacks F15 and SF38, respectively;
- (10) One (1) automated varnish line, identified as F23, with a maximum capacity of coating 1000 units per hour, consisting of one (1) enclosed spray booth utilizing an airless spray application system with particulate emissions controlled by dry filters, exhausting to stack SF23;
- (11) One (1) automated varnish line, identified as F30, with a maximum capacity of coating 1000 units per hour, consisting of one (1) enclosed spray booth utilizing an airless spray application system with particulate emissions controlled by dry filters, exhausting to stack SF30;
- (12) One (1) flat line parts booth, identified as F51, with a maximum rating of 25 units per hour, with particulate emissions controlled by dry filters, exhausting at Stacks SF51a and SF51b;

Finishing - Molding Line

- (13) One (1) parts booth, identified as FM1, with a maximum coating rate of 25 parts per hour, exhausting through stack SFM1. Particulate emissions from the spray guns are controlled by dry filters.

Under the National Emissions Standards for Hazardous Air Pollutants for Wood Furniture Manufacturing Operations (NESHAP) (40 CFR 63, Subpart JJ), the surface coating operations C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F38, F23, F30, F51, and FM1 are considered existing units at an existing affected source.

- (c) Three (3) spray stations, approved in 2015 for construction, identified as PN-1, PN-2, and PN-3, each with a maximum capacity of 360 parts per hour, utilizing high volume low pressure (HVLP) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.

The spray stations are affected units located at an existing source under the provisions of 40 CFR 63, Subpart JJ.

- (d) One (1) manual spray booth, approved in 2015 for construction, identified as PB1-12, with a maximum capacity of 140 parts per hour, utilizing high volume low pressure (HVLP) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.

The spray booth is an affected unit located at an existing source under the provisions of 40 CFR 63, Subpart JJ.

A.3 Specifically Regulated Insignificant Activities
[326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) MMBtu per hour including the following:
- (1) Two (2) natural gas fired boilers, identified as B4 and B5, constructed in 2011 (B4) and 2012 (B5), each rated at 1.5 MMBtu per hour and exhausting through stacks SB4 and SB5 respectively. [326 IAC 6-2-4]
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2(e)(2)]
- (c) Eight (8) applying wood and/or PVC veneers using EVA hot melt glue or adhesive, pre-glued wood veneers, or hot stamp foil material. The hot melt glues and adhesives meet the definition of a non-HAP coating, specified in 40 CFR 63, Subpart DDDD as a coating with HAP contents below 0.1 percent by mass for Occupational Safety and Health Administration-defined carcinogens as specified in 29 CFR 1910.1200(d)(4), and below 1.0 percent by mass for other HAP compounds. Under 40 CFR 63, Subpart DDDD, these edge-banding processes are considered existing affected units at an existing affected source.
- (d) Woodworking Operations (Insignificant pursuant to 326 IAC 2-7-21(G)(xxx)) consisting of:
- (1) One (1) woodworking cell, identified as WW3, constructed in 2001, controlled by a 23,000 cubic feet per minute baghouse, identified as CC3, and exhausting either internally or to stack SCC3. [326 IAC 6-3-2]
- (2) One (1) woodworking cell, identified as WW7, constructed in 1989, controlled by a 23,000 cubic feet per minute baghouse, identified as CC7, and exhausting either internally or to stack SCC7. [326 IAC 6-3-2]

- (3) One (1) woodworking cell, identified as WW8, constructed in 1989, controlled by a 19,400 cubic feet per minute baghouse, identified as CC8, and exhausting either internally or to stack SCC8. [326 IAC 6-3-2]
 - (4) One (1) woodworking cell, identified as WW9, constructed in 1987, controlled by a 23,000 cubic feet per minute baghouse, identified as SCC01, and exhausting either internally or to stack SSCC01. [326 IAC 6-3-2]
 - (5) One (1) woodworking cell, identified as WW10, constructed in 1987, controlled by a 34,330 cubic feet per minute baghouse, identified as SCC02, and exhausting either internally or to stack SSCC02. [326 IAC 6-3-2]
 - (6) One (1) woodworking cell, identified as WW11, constructed in 1987, controlled by a 27,400 cubic feet per minute baghouse, identified as SCC04, and exhausting either internally or to stack SSCC04. [326 IAC 6-3-2]
 - (7) One (1) woodworking cell, identified as WW12, constructed in 1989, controlled by a 61,000 cubic feet per minute baghouse installed in 2009 identified as CC10 and exhausting to stack SCC10, or exhausting internally. [326 IAC 6-3-2]
 - (8) One (1) woodworking cell, identified as WW13, constructed in 2005, controlled by a 61,000 cubic feet per minute baghouse installed in 2009 identified as CC10 and exhausting to stack SCC10, or exhausting internally. [326 IAC 6-3-2]
 - (9) One (1) woodworking cell, identified as WW14, constructed in 2001, controlled by a 61,000 cubic feet per minute baghouse installed in 2009 identified as CC10 and exhausting to stack SCC10, or exhausting internally. [326 IAC 6-3-2]
 - (10) One (1) woodworking cell, identified as WW17, constructed in 1997, controlled by a 61,000 cubic feet per minute baghouse installed in 2009 identified as CC10 and exhausting to stack SCC10, or exhausting internally. [326 IAC 6-3-2]
- (e) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2(e)(2)]
- (f) One (1) natural gas fired emergency generator, identified as EG1, constructed in 2003 and manufactured in 2003, with a maximum output of 16 HP.
- This generator is an existing affected source under 40 CFR 63, Subpart ZZZZ.
- (g) One (1) natural gas fired emergency generator, identified as EG2, constructed in 2014 and manufactured in 2014, with a maximum output of 27 HP.
- This generator is an affected source under 40 CFR 60, Subpart JJJJ and a new affected source under 40 CFR 63, Subpart ZZZZ.
- (h) One (1) UV glazing process, constructed in 2014, consisting of:
- (1) One (1) surface coating process, applied by syringe, with a maximum throughput of 0.075 gallons per hour.
 - (2) One (1) natural gas fired curing oven, with a maximum heat input of 0.5 MMBtu per hour.

- (i) One (1) Regenerative thermal oxidizer, approved in 2015 for construction, identified as RTO-1, with a maximum heat input capacity of 4.04 MMBtu/hr.
- (j) One (1) natural gas-fired parts booth batch oven, approved in 2015 for construction, identified as EX BO 1, with a maximum heat input capacity of 0.5 MMBtu/hr.
- (k) One (1) UV glazing and solvent process, approved in 2015 for construction, with a maximum throughput of 0.75 gallons per hour, and using a syringe to apply coatings.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit 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 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

- (a) This permit, T039-34286-00014, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:
- (1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and
 - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(35).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit 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.
- (c) The annual compliance certification report shall include the following:
- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ or Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
- (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
 - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
 - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
 - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T039-34286-00014 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least eight (8) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.

- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
 - (1) Submitted at least eight (8) months prior to the date of the expiration of this permit; and
 - (2) 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.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.18 Permit Revision Under Economic Incentives and Other Programs
[326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

- (a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 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 forty percent (40%) 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.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee 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). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.7 Performance Testing [326 IAC 3-6]

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

C.9 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

- (a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.
- (b) For existing units:
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.10 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.11 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.12 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.13 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.

- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
 - (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.15 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]
Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]
[326 IAC 2-2][326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

- (AA) The date, place, as defined in this permit, and time of sampling or measurements.
- (BB) The dates analyses were performed.
- (CC) The company or entity that performed the analyses.
- (DD) The analytical techniques or methods used.
- (EE) The results of such analyses.
- (FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

- (c) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, document and maintain the following records:

- (A) A description of the project.
- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(2)(A)(iii); and

- (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:
- (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]
[326 IAC 2-2][326 IAC 2-3]

-
- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:
- Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit 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.
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1

(oo) and/or 326 IAC 2-3-1 (jj)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (ww) and/or 326 IAC 2-3-1 (pp), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (f) The report for project at an existing emissions unit shall be submitted no later than sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (g) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Combustion

Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) MMBtu per hour including the following:
 - (1) Two (2) natural gas fired boilers, identified as B4 and B5, constructed in 2011 (B4) and 2012 (B5), each rated at 1.5 MMBtu per hour and exhausting through stacks SB4 and SB5, respectively. [326 IAC 6-2-4]

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

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), PM emissions from the two (2) boilers, each with a maximum heat input capacity of 1.5 MMBtu per hour, identified as B4 and B5, shall not exceed 0.60 pound per MMBtu of heat input.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Woodworking

(a) Woodworking Operations consisting of:

- (1) One (1) woodworking cell, identified as WW1, constructed in 2004, controlled by a 72,000 cubic feet per minute baghouse, identified as CC1, and exhausting either internally or to stack SCC1.
- (2) One (1) woodworking cell, identified as WW2, constructed in 2001, controlled by a 72,000 cubic feet per minute baghouse, identified as CC2, and exhausting either internally or to stack SCC2.
- (3) One (1) woodworking cell, identified as WW4, constructed in 2004, controlled by a 46,700 cubic feet per minute baghouse, identified as CC4, and exhausting either internally or to stack SCC4.
- (4) One (1) woodworking cell, identified as WW5, constructed in 1988, controlled by a 46,700 cubic feet per minute baghouse, identified as CC5, and exhausting either internally or to stack SCC5.
- (5) One (1) woodworking cell, identified as WW6, constructed in 1989, controlled by a 46,700 cubic feet per minute baghouse, identified as CC6, and exhausting either internally or to stack SCC6.

Insignificant Activities

(d) Woodworking Operations (Insignificant pursuant to 326 IAC 2-7-21(G)(xxx)) consisting of:

- (1) One (1) woodworking cell, identified as WW3, constructed in 2001, controlled by a 23,000 cubic feet per minute baghouse, identified as CC3, and exhausting either internally or to stack SCC3.
- (2) One (1) woodworking cell, identified as WW7, constructed in 1989, controlled by a 23,000 cubic feet per minute baghouse, identified as CC7, and exhausting either internally or to stack SCC7.
- (3) One (1) woodworking cell, identified as WW8, constructed in 1989, controlled by a 19,400 cubic feet per minute baghouse, identified as CC8, and exhausting either internally or to stack SCC8.
- (4) One (1) woodworking cell, identified as WW9, constructed in 1987, controlled by a 23,000 cubic feet per minute baghouse, identified as SCC01, and exhausting either internally or to stack SCCC01.
- (5) One (1) woodworking cell, identified as WW10, constructed in 1987, controlled by a 34,330 cubic feet per minute baghouse, identified as SCC02, and exhausting either internally or to stack SCCC02.
- (6) One (1) woodworking cell, identified as WW11, constructed in 1987, controlled by a 27,400 cubic feet per minute baghouse, identified as SCC04, and exhausting either internally or to stack SCCC04.
- (7) One (1) woodworking cell, identified as WW12, constructed in 1989, controlled by a 61,000 cubic feet per minute baghouse installed in 2009 identified as CC10 and exhausting to stack SCC10, or exhausting internally. [326 IAC 6-3-2]

- (8) One (1) woodworking cell, identified as WW13, constructed in 2005, controlled by a 61,000 cubic feet per minute baghouse installed in 2009 identified as CC10 and exhausting to stack SCC10, or exhausting internally. [326 IAC 6-3-2]
 - (9) One (1) woodworking cell, identified as WW14, constructed in 2001, controlled by a 61,000 cubic feet per minute baghouse installed in 2009 identified as CC10 and exhausting to stack SCC10, or exhausting internally. [326 IAC 6-3-2]
 - (10) One (1) woodworking cell, identified as WW17, constructed in 1997, controlled by a 61,000 cubic feet per minute baghouse installed in 2009 identified as CC10 and exhausting to stack SCC10, or exhausting internally. [326 IAC 6-3-2]
- (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to Minor Source Modification No. 039-13961-00014, issued on April 24, 2001, Minor Source Modification No. 039-17118-00014, issued on June 4, 2003, and as revised by Permit Renewal No. T039-34286-00014, PM, PM10, and PM2.5 emissions from the entire source shall each be less than 250 tons per twelve (12) consecutive month period. This limitation includes equipment listed in sections D.1 through D.4. To comply with this limit, the total PM, PM10, and PM2.5 emissions from the woodworking facilities identified as, WW1 through WW14 and WW17, shall not exceed the limits specified in the following table:

| Emission Unit | ID | PM Limit (lb/hr) | PM10 Limit (lb/hr) | PM2.5 Limit (lb/hr) |
|-------------------|------|------------------|--------------------|---------------------|
| Woodworking Cell | WW1 | 1.36 | 1.36 | 1.36 |
| Woodworking Cell | WW2 | 1.36 | 1.36 | 1.36 |
| Woodworking Cell | WW3 | 0.44 | 0.44 | 0.44 |
| Woodworking Cell | WW4 | 0.88 | 0.88 | 0.88 |
| Woodworking Cell | WW5 | 0.88 | 0.88 | 0.88 |
| Woodworking Cell | WW6 | 0.88 | 0.88 | 0.88 |
| Woodworking Cell | WW7 | 0.44 | 0.44 | 0.44 |
| Woodworking Cell | WW8 | 0.37 | 0.37 | 0.37 |
| Woodworking Cell | WW9 | 0.44 | 0.44 | 0.44 |
| Woodworking Cell | WW10 | 0.65 | 0.65 | 0.65 |
| Woodworking Cell | WW11 | 0.52 | 0.52 | 0.52 |
| Woodworking Cell* | WW12 | 3.84 | 3.84 | 3.84 |
| Woodworking Cell* | WW13 | | | |
| Woodworking Cell* | WW14 | | | |
| Woodworking Cell* | WW17 | | | |

*Emissions from these units are controlled by the one baghouse (CC10)

Compliance with these limits, combined with the potential to emit PM, PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide PM, PM10, and PM2.5 emissions to less than 250 tons per year, each, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.2.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate from the woodworking cells identified as, WW1 through WW14 and WW17, shall be limited by the following:

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:

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

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.2.4 Particulate Control

Pursuant to Part 70 Operating Permit T039-6029-00014, issued on December 22, 1998, Significant Source Modification No. 039-17310-00014, issued on September 26, 2003; Significant Permit Modification No. 039-17815-00014, issued on October 17, 2003, and in order to comply with Conditions D.2.1 and D.2.2, the baghouses and dust collectors for particulate control shall be in operation and control emissions from the woodworking cells, identified as, WW1 through WW14 and WW17, at all times that the woodworking cells are in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)][40 CFR 64]

D.2.5 Visible Emissions Notations

- (a) Daily visible emission notations of the woodworking baghouse and dust collector stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response. Section C – Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps, shall be considered a deviation from this permit.

D.2.6 Broken or Failed Bag Detection

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)][326 IAC 2-7-19]

D.2.7 Record Keeping Requirements

- (a) To document the compliance status with Condition D.2.5, the Permittee shall maintain records of daily visible emission notations of the woodworking baghouse and dust collector stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).
- (b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Surface Coating

- (b) Eighteen (18) spray booths C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F38, F23, F30, F51, and FM1 with the following descriptions:

Finishing - Customs Line

- (1) One (1) pre-stain booth, identified as C2, with a maximum rating of 25 units per hour, with particulate emissions controlled by dry filters, exhausting at Stack ID SC2;

Finishing - Hang Line

- (2) Three (3) hanging line stain booths, identified as H1, H2, and H3, with a total maximum rating of 1,125 units per hour (375 each), with particulate emissions controlled by dry filters, exhausting at Stacks ID SH1, SH2, and SH3;
- (3) Two (2) hanging line sealer booths, identified as H5 and H6, with a total maximum rating of 750 units per hour (375 each), with particulate emissions controlled by dry filters, exhausting at Stacks ID SH5 and SH6;
- (4) Two (2) hanging line topcoat booths, identified as H9 and H10, with a total maximum rating of 750 units per hour (375 each), with particulate emissions controlled by dry filters, exhausting at Stacks SH9 and SH10;
- (5) One (1) white parts booth identified as H12, with a maximum rating of 75 units per hour, with particulate emissions controlled by dry filters, exhausting at Stacks ID SH12a and SH12b;
- (6) One (1) hanging line parts booth identified as H19, with a maximum rating of 25 units per hour, with particulate emissions controlled by dry filters, exhausting at Stack ID SH19;

Finishing - Flat Line (UV Line)

- (7) One (1) automated stain line, identified as F3, with a maximum capacity of coating 1000 units per hour, utilizing a high volume low pressure spray application, with particulate emissions controlled by dry filters, and exhausting to stacks SF3, SF4a, and SF4b;
- (8) One (1) automated stain line, identified as F9, with a maximum capacity of coating 1000 units per hour, consisting of one (1) enclosed spray booth utilizing a high volume low pressure spray application system with particulate emissions controlled by dry filters, exhausting to stack SF9;
- (9) Two (2) automated varnish lines, identified as F15 and F38, each with a maximum capacity of coating 1000 units per hour, (2000 total) utilizing an airless spray application, with particulate emissions controlled by water curtain systems, and exhausting to stacks F15 and SF38, respectively;
- (10) One (1) automated varnish line, identified as F23, with a maximum capacity of coating 1000 units per hour, consisting of one (1) enclosed spray booth utilizing an airless spray application system with particulate emissions controlled by dry filters, exhausting to stack SF23;
- (11) One (1) automated varnish line, identified as F30, with a maximum capacity of coating 1000 units per hour, consisting of one (1) enclosed spray booth utilizing an airless spray application system with particulate emissions controlled by dry filters, exhausting to stack SF30;

- (12) One (1) flat line parts booth, identified as F51, with a maximum rating of 25 units per hour, with particulate emissions controlled by dry filters, exhausting at Stacks SF51a and SF51b;

Finishing - Molding Line

- (13) One (1) parts booth, identified as FM1, with a maximum coating rate of 25 parts per hour, exhausting through stack SFM1. Particulate emissions from the spray guns are controlled by dry filters.

Under the National Emissions Standards for Hazardous Air Pollutants for Wood Furniture Manufacturing Operations (NESHAP) (40 CFR 63, Subpart JJ), the surface coating operations C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F38, F23, F30, F51, and FM1 are considered existing units at an existing affected source.

- (c) Three (3) spray stations, approved in 2015 for construction, identified as PN-1, PN-2, and PN-3, each with a maximum capacity of 360 parts per hour, utilizing high volume low pressure (HVLP) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.

The spray stations are affected units located at an existing source under the provisions of 40 CFR 63, Subpart JJ.

- (d) One (1) manual spray booth, approved in 2015 for construction, identified as PB1-12, with a maximum capacity of 140 parts per hour, utilizing high volume low pressure (HVLP) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.

The spray booth is an affected unit located at an existing source under the provisions of 40 CFR 63, Subpart JJ.

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

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 PSD and Emission Offset Limit [326 IAC 2-2][326 IAC 2-3]

- (a) Pursuant to Minor Source Modification No. 039-13961-00014, issued on April 24, 2001, Minor Source Modification No. 039-17118-00014, issued on June 4, 2003, and as revised by Permit Renewal No. T039-34286-00014, PM, PM10, and PM2.5 emissions from the entire source shall each be less than 250 tons per twelve (12) consecutive month period. This limitation includes equipment listed in sections D.1 through D.4. To comply with this limit, the total PM, PM10, and PM2.5 emissions from the spray booths, identified as C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F23, F30, F38, F51, and FM1 shall not exceed the limits specified in the following table:

| Emission Unit ID | PM Limit (lb/hr) | PM10 Limit (lb/hr) | PM2.5 Limit (lb/hr) |
|------------------|------------------|--------------------|---------------------|
| C2 | 0.10 | 0.10 | 0.10 |
| H1 | 4.57 | 4.57 | 4.57 |
| H2 | 4.57 | 4.57 | 4.57 |
| H3 | 4.57 | 4.57 | 4.57 |
| H5 | 1.42 | 1.42 | 1.42 |
| H6 | 1.42 | 1.42 | 1.42 |

| Emission Unit ID | PM Limit (lb/hr) | PM10 Limit (lb/hr) | PM2.5 Limit (lb/hr) |
|------------------|------------------|--------------------|---------------------|
| H9 | 2.12 | 2.12 | 2.12 |
| H10 | 2.12 | 2.12 | 2.12 |
| H12 | 0.82 | 0.82 | 0.82 |
| H19 | 0.13 | 0.13 | 0.13 |
| F3 | 1.73 | 1.73 | 1.73 |
| F9 | 1.73 | 1.73 | 1.73 |
| F15 | 4.68 | 4.68 | 4.68 |
| F23 | 3.33 | 3.33 | 3.33 |
| F30 | 3.45 | 3.45 | 3.45 |
| F38 | 3.76 | 3.76 | 3.76 |
| F51 | 0.13 | 0.13 | 0.13 |
| FM1 | 2.37 | 2.37 | 2.37 |

Compliance with these limits, combined with the potential to emit PM, PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide PM, PM10, and PM2.5 emissions to less than 250 tons per year, each, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

- (b) Pursuant to Minor Source Modification No. 039-13961-00014, issued on April 24, 2001, Minor Source Modification No. 039-17118-00014, issued on June 4, 2003, and Minor Permit Modification No. 039-17224-00014, issued on July 7, 2003, the VOC input, including coatings, dilution solvents, and cleaning solvents to surface coating booths C2, H12, H19, F3, F9, F15, F23, F30, F38, and F51 shall be less than 248.8 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit shall limit VOC emissions from surface coating booths C2, H12, H19, F3, F9, F15, F23, F30, F38, and F51 to less than 248.8 tons per twelve (12) consecutive month period, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to surface coating booths C2, H12, H19, F3, F9, F15, F23, F30, F38, and F51.

- (c) Pursuant to Significant Source Modification No. 039-17310-00014, issued on September 26, 2003, and Significant Permit Modification No. 039-17815-00014, issued on October 17, 2003, the VOC input, including coatings, dilution solvents, and cleaning solvents, to surface coating booths H1, H2, H3, H5, H6, H9, and H10 shall be limited to less than 250 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit shall limit VOC emissions from surface coating booths H1, H2, H3, H5, H6, H9, and H10 to less than 250 tons of VOC per twelve (12) consecutive month period, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to surface coating booths H1, H2, H3, H5, H6, H9, and H10.

- (d) Pursuant to Minor Source Modification No. 039-23626-00014, issued on November 2, 2006, and as revised by Permit Renewal No. T039-34286-00014, VOC input, including coatings, dilution solvents, and cleaning solvents, to booth FM1 shall be less than 40 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with this limit shall limit VOC emissions from booth FM1 to less than 40 tons per twelve (12) consecutive month period, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to booth FM1.

(e) Pursuant to Significant Source Modification No. 039-34897-00014, the Permittee shall comply with the following:

(1) The total PM, PM10, and PM2.5 emissions from the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) shall not exceed the limits specified in the following table:

| Emission Unit ID | PM Limit (lb/hr) | PM10 Limit (lb/hr) | PM2.5 Limit (lb/hr) |
|------------------|------------------|--------------------|---------------------|
| PN1 | 1.39 | 0.82 | 0.54 |
| PN2 | 1.39 | 0.82 | 0.54 |
| PN3 | 1.39 | 0.82 | 0.54 |
| PB1-12 | 1.39 | 0.82 | 0.54 |

(2) The total VOC emissions from the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) shall not exceed 38 tons of VOC per twelve (12) consecutive month period.

Compliance with these emission limits will ensure that the potential to emit from the units added in Significant Source Modification 039-34897-00014 is less than twenty-five (25) tons of PM per twelve (12) month consecutive period, fifteen (15) tons of PM₁₀ per twelve (12) month consecutive period, ten (10) tons of direct PM_{2.5} per twelve (12) month consecutive period, and 40 tons of VOC per twelve (12) month consecutive period, and therefore will render the requirements of 326 IAC 2-2 not applicable.

D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.3.3 Particulate Matter (PM) [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the surface coating operations shall be controlled by dry particulate filters, waterwashes, or an equivalent control device, and the Permittee shall operate the control devices in accordance with manufacturer's specifications.

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.3.5 Volatile Organic Compounds (VOC)

- (a) Compliance with the VOC limitation contained in Conditions D.3.1(b), (c), (d), and (e)(2) shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets or Certified Product Data Sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- (b) When using the regenerative thermal oxidizer (RTO-1) to comply with Condition D.3.1(e)(2) for one or more of the surface coating operations (spray stations PN1, PN2, and PN3, and spray booth PB1-12), the regenerative thermal oxidizer shall be in operation at all times that those surface coating operations are in operation.
- (c) When limiting VOC input to comply with Conditions D.3.1(b), (c), (d), and (e)(2), the amount of VOC in the waste shipped offsite for recycling or disposal may be deducted from the monthly VOC input reported. The Permittee shall determine the VOC content of the waste shipped offsite using one or a combination of the following methods:
- (1) On-Site Sampling
- (A) VOC content shall be determined pursuant to 326 IAC 8-1-4(a)(3) by EPA Reference Method 24 and the sampling procedures in 326 IAC 8-1-4 or other methods as approved by the Commissioner.
- (B) A representative sample of the VOC containing waste to be shipped offsite shall be analyzed within 90 days of the issuance of permit 039-34897-00014.
- (C) If multiple cleanup solvent waste streams are collected and drummed separately, a sample shall be collected and analyzed from each solvent waste stream.
- (D) A new representative sample shall be collected and analyzed whenever a change or changes occur(s) that could result in a cumulative 10% or more decrease in the VOC content of the VOC containing waste. Such change could include, but is not limited to, the following:
- (i) A change in coating selection or formulation, as supplied or as applied, or a change in solvent selection or formulation, or
- (ii) An operational change in the coating application or cleanup operations.
- The new VOC content shall be used in calculating the amount of VOC shipped offsite, starting with the date that the change occurred. The sample shall be collected and analyzed within 30 days of the change.
- (2) Certified Waste Report: The VOC reported by analysis of an offsite waste processor may be used, provided the report certifies the amount of VOC in the waste.

- (3) VOC content: The VOC content of the waste shipped offsite may be determined using the "as supplied" and "as applied" VOC data sheets for the materials used for each month.
- (4) IDEM reserves the right to request a representative sample of the VOC containing waste stream and conduct an analysis for VOC content.
- (d) Compliance with the VOC input limitations contained in Conditions D.3.1(b), (c), and (d) shall be demonstrated within 30 days of the end of each month. This shall be based on the total volatile organic compound input for the previous month, minus the amount VOC in the waste shipped out for recycling or disposal, and adding it to previous 11 months total VOC input, minus the amount VOC in the waste shipped out for recycling or disposal, so as to arrive at VOC input for the most recent twelve (12) consecutive month period.

The VOC input for a month shall be calculated using the following equation:

$$\text{VOC input} = \text{SCL} - \text{SR}$$

Where:

SCL = The total amount of VOC, in tons, delivered to the coating applicators, including coatings, dilution solvents, and cleaning solvents, at the surface coating booths; and

SR = The total amount of VOC, in tons, shipped out for either recycling or disposal, including coatings, dilution solvents, and cleaning solvents, from the surface coating booths.

- (e) In order to determine compliance with Condition D.3.1(e)(2), the Permittee shall calculate the VOC emissions using the following equations:

Total VOC emitted = [Total VOC input to PN-1, PN-2, PN-3, and PB1-12 x (1- overall control efficiency of regenerative thermal oxidizer from the most recent valid compliance demonstration, when RTO-1 is used for VOC control)] + [Total Uncontrolled VOC input to PN-1, PN-2, PN-3, and PB1-12 when RTO-1 is not used for VOC control] - Total waste VOC shipped offsite.

D.3.6 Particulate Control

- (a) Particulate from all of the surface coating operations at the source, identified as C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F38, F23, F30, F51, FM1, PN-1, PN-2, PN-3, and PB1-12 shall be controlled by dry particulate filters, waterwashes, or an equivalent control device, and the Permittee shall operate the control devices in accordance with manufacturer's specifications.
- (b) If PM, PM10, and/or PM2.5 testing under Condition D.3.7(a) demonstrates that one or more of the surface coating operations (spray stations PN1, PN2, and PN3, and spray booth PB1-12) must be controlled by the regenerative thermal oxidizer (RTO-1) in order to demonstrate compliance with Condition D.3.1(e)(1), then the RTO-1 shall be in operation at all times that those surface coating operations are in operation.

D.3.7 Testing Requirements [326 IAC 2-1.1-11]

- (a) No later than 180 days after startup of the surface coating operations (spray stations PN1, PN2, and PN3, and spray booth PB1-12), in order to demonstrate compliance with Condition D.3.1(e)(1), the Permittee shall perform PM, PM10, and PM2.5 testing of the emissions from spray stations PN1, PN2, and PN3, and spray booth PB1-12 at the inlet and outlet to the regenerative thermal oxidizer (RTO-1) utilizing method approved by the commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.
- (b) No later than 180 days after startup of any one (1) of the surface coating operations (spray stations PN1, PN2, and PN3, or spray booth PB1-12), the Permittee shall perform inlet and outlet VOC testing of the regenerative thermal oxidizer (RTO-1) utilizing method approved by the commissioner in order determine the overall VOC control efficiency. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

During the most recent stack test, the overall VOC control efficiency (CE) shall be determined as follows:

$$CE = \frac{VOC_{IN} - VOC_{OUT}}{VOC_{IN}}$$

Where:

- CE = Overall VOC Control Efficiency of RTO-1
VOC_{IN} = Total VOC Input to RTO-1 controlling PN-1, PN-2, PN-3, and PB1-12
VOC_{OUT} = Total VOC Output from RTO-1 controlling PN-1, PN-2, PN-3, and PB1-12

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.8 Monitoring

- (a) The surface coating operations at the source, identified as C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F38, F23, F30, F51, FM1, PN-1, PN-2, PN-3, and PB1-12 have applicable compliance monitoring conditions as specified below:

The Permittee shall implement an operator training program.

- (1) All operators that perform surface coating operations using spray equipment or booth maintenance shall be trained in the proper set-up and operation of the particulate control systems. All existing operators shall be trained within 60 days of the date of permit issuance. All new operators shall be trained upon hiring or transfer.
- (2) Training shall include proper filter alignment, filter inspection and maintenance, water wash inspection and maintenance, and troubleshooting practices. The training program shall be written and retained on site. The training program shall include a description of the methods to be used at the completion of initial and refresher training to demonstrate and document successful completion. Copies of the training program, the list of trained operators and training records shall be maintained on site.
- (3) All operators shall be given refresher training annually.

D.3.9 Thermal Oxidizer Temperature

- (a) A continuous monitoring system shall be calibrated and maintained on the thermal oxidizer for measuring operating temperature. The monitoring system shall be operated when the RTO-1 is being used to comply with Condition 3.1(e)(2). For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as 3-hour average. From the date of startup until the stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature of 1,400°F.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Condition D.3.1(e)(2) (if the thermal oxidizer is used to comply with the VOC limitation under Condition D.3.1(e)(2)).
- (c) On and after the date the stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test. When, for any one reading, the 3-hour average temperature falls below the temperature listed above or the average temperature established during the latest stack test, the Permittee shall take reasonable steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A 3-hour temperature that falls below the above mentioned temperature is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.3.10 Parametric Monitoring

- (a) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with limits in Condition D.3.1(e)(2) (if the thermal oxidizer is used to comply with the VOC limitation under Condition D.3.1(e)(2)).
- (b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. On and after the date the stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in most recent compliant stack test. When, for any one reading, the duct pressure or fan amperage is outside the appropriate range established during the latest stack test, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A duct pressure or fan amperage reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.11 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.3.1(b), (c), (d), and (e)(2) the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC input limits and/or the VOC emission limits established in Conditions D.3.1(b), (c), (d), and (e)(2) and to document the quantity of any VOC shipped offsite and deducted from total reported VOC input. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
 - (1) The VOC content of each coating material and solvent used;
 - (2) The amount of coating material and solvent less water used, including those added to coatings and those used for cleanup, on a monthly basis;

- (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;
- (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
- (3) The cleanup solvent usage for each month;
- (4) The total VOC input for each month and each compliance period; and
- (5) The weight of VOCs emitted for each month and each compliance period.
- (6) Records indicating when VOC emissions from PN-1, PN-2, PN-3, and PB1-12 were controlled by the thermal oxidizer and when VOC emissions from PN-1, PN-2, PN-3, and PB1-12 were not controlled by the thermal oxidizer.
- (7) When the amount of VOC in waste material is being deducted from the VOC input in order to comply with Conditions D.3.1(b), (c), (d), and (e)(2), then the following records shall be maintained:
 - (A) The amount of VOC containing waste shipped out to be recycled or disposed each month. If multiple cleanup solvent waste streams are collected and drummed separately, the amount shipped out shall be recorded separately for each used solvent stream.
 - (B) The VOC content of the waste and all records necessary to verify the amount and VOC content of the VOC containing waste shipped out for recycling or disposal.
 - (C) The weight of VOC input, minus the weight of VOC shipped out to be recycled or disposed, for each compliance period.
- (b) To document the compliance status with Condition D.3.8, the Permittee shall maintain copies of the training program, the list of trained operators, and training records shall be maintained on site.
- (c) To document the compliance status with Conditions D.3.9 and D.3.10, the Permittee shall maintain records in accordance with the following:
 - (1) The continuous temperature records (on a 3-hour average basis) for the regenerative thermal oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test. The Permittee shall include in its daily record when a temperature reading is not taken and the reason for the lack of temperature reading (e.g., the regenerative thermal oxidizer was not operating).
 - (2) Daily records of the duct pressure or fan amperage. The Permittee shall include in its daily record when a pressure or fan amperage reading is not taken and the reason for the lack of pressure or fan amperage reading (e.g., the regenerative thermal oxidizer was not operating).
- (d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition

D.3.12 Reporting Requirements

Quarterly summaries of the information to document the compliance status with Conditions D.3.1(b), (c), (d), and (e)(2) shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being

reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(35).

SECTION D.4

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Machining

Insignificant Activities

- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2(e)(2)]
- (e) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2(e)(2)]

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

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.4.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), the particulate from the Insignificant Activities related to grinding, machining, brazing and welding shall be limited to five hundred fifty-one thousandths (0.551) pound per hour.

SECTION E.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Edgebanding

Insignificant Activities

- (c) Eight (8) edge-banding processes applying wood and/or PVC veneers using EVA hot melt glue or adhesive, pre-glued wood veneers, or hot stamp foil material. The hot melt glues and adhesives meet the definition of a Non-HAP coating, specified in 40 CFR 63, Subpart DDDD as a coating with HAP contents below 0.1 percent by mass for Occupational Safety and Health Administration-defined carcinogens as specified in 29 CFR 1910.1200(d)(4), and below 1.0 percent by mass for other HAP compounds. Under 40 CFR 63, Subpart DDDD, these edge-banding processes are considered an existing affected source at a PCWP manufacturing facility.

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

Emission Limitations and Standards [326 IAC 2-7-5(1)]

National Emissions Standards for Hazardous Air Pollutants (NESHAP) Requirements:

E.1.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

- (a) Pursuant to 40 CFR 63.800, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1 unless otherwise specified in 40 CFR 63, Subpart DDDD (National Emission Standards for Plywood and Composite Wood Products), included in this permit as Attachment A, for the eight (8) Edge-banding process applying veneer to wood panels.
- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 National Emission Standards for Hazardous Air Pollutants for Plywood and Composite Wood Products [40 CFR 63, Subpart DDDD]

Pursuant to 40 CFR Part 63, Subpart DDDD, the Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart DDDD (included as Attachment B to this permit), for the insignificant edge-banding operations and all other activities associated with the production of plywood or composite wood products as specified in 40 CFR Part 63, Subpart DDDD:

- (1) 40 CFR 63.2230
- (2) 40 CFR 63.2231 (a) (b)
- (3) 40 CFR 63.2232 (a) (b) (e)
- (4) 40 CFR 63.2233 (b) (d)
- (5) 40 CFR 63.2250 (a) (b)
- (6) 40 CFR 63.2252

SECTION E.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Surface Coating

- (b) Eighteen (18) spray booths C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F38, F23, F30, F51, and FM1 with the following descriptions:

Finishing - Customs Line

- (1) One (1) pre-stain booth, identified as C2, with a maximum rating of 25 units per hour, with particulate emissions controlled by dry filters, exhausting at Stack ID SC2;

Finishing - Hang Line

- (2) Three (3) hanging line stain booths, identified as H1, H2, and H3, with a total maximum rating of 1,125 units per hour (375 each), with particulate emissions controlled by dry filters, exhausting at Stacks ID SH1, SH2, and SH3;
- (3) Two (2) hanging line sealer booths, identified as H5 and H6, with a total maximum rating of 750 units per hour (375 each), with particulate emissions controlled by dry filters, exhausting at Stacks ID SH5 and SH6;
- (4) Two (2) hanging line topcoat booths, identified as H9 and H10, with a total maximum rating of 750 units per hour (375 each), with particulate emissions controlled by dry filters, exhausting at Stacks SH9 and SH10;
- (5) One (1) white parts booth identified as H12, with a maximum rating of 75 units per hour, with particulate emissions controlled by dry filters, exhausting at Stacks ID SH12a and SH12b;
- (6) One (1) hanging line parts booth identified as H19, with a maximum rating of 25 units per hour, with particulate emissions controlled by dry filters, exhausting at Stack ID SH19;

Finishing - Flat Line (UV Line)

- (7) One (1) automated stain line, identified as F3, with a maximum capacity of coating 1000 units per hour, utilizing a high volume low pressure spray application, with particulate emissions controlled by dry filters, and exhausting to stacks SF3, SF4a, and SF4b;
- (8) One (1) automated stain line, identified as F9, with a maximum capacity of coating 1000 units per hour, consisting of one (1) enclosed spray booth utilizing a high volume low pressure spray application system with particulate emissions controlled by dry filters, exhausting to stack SF9;
- (9) Two (2) automated varnish lines, identified as F15 and F38, each with a maximum capacity of coating 1000 units per hour, (2000 total) utilizing an airless spray application, with particulate emissions controlled by water curtain systems, and exhausting to stacks F15 and SF38, respectively;
- (10) One (1) automated varnish line, identified as F23, with a maximum capacity of coating 1000 units per hour, consisting of one (1) enclosed spray booth utilizing an airless spray application system with particulate emissions controlled by dry filters, exhausting to stack SF23;
- (11) One (1) automated varnish line, identified as F30, with a maximum capacity of coating 1000 units per hour, consisting of one (1) enclosed spray booth utilizing an airless spray application system with particulate emissions controlled by dry filters, exhausting to stack SF30;

- (12) One (1) flat line parts booth, identified as F51, with a maximum rating of 25 units per hour, with particulate emissions controlled by dry filters, exhausting at Stacks SF51a and SF51b;

Finishing - Molding Line

- (13) One (1) parts booth, identified as FM1, with a maximum coating rate of 25 parts per hour, exhausting through stack SFM1. Particulate emissions from the spray guns are controlled by dry filters.

Under the National Emissions Standards for Hazardous Air Pollutants for Wood Furniture Manufacturing Operations (NESHAP) (40 CFR 63, Subpart JJ), the surface coating operations C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F38, F23, F30, F51, and FM1 are considered existing units at an existing affected source.

- (c) Three (3) spray stations, approved in 2015 for construction, identified as PN-1, PN-2, and PN-3, each with a maximum capacity of 360 parts per hour, utilizing high volume low pressure (HVLV) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.

The spray stations are affected units located at an existing source under the provisions of 40 CFR 63, Subpart JJ.

- (d) One (1) manual spray booth, approved in 2015 for construction, identified as PB1-12, with a maximum capacity of 140 parts per hour, utilizing high volume low pressure (HVLV) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.

The spray booth is an affected unit located at an existing source under the provisions of 40 CFR 63, Subpart JJ.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.2.1 General Provisions Relating to NESHAP JJ [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.800, The Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1 for the surface coating operations identified as C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F23, F30, F38, F51, FM1, PN-1, PN-2, PN-3, and PB1-12, as specified in Table 1 of 40 CFR Part 63, Subpart JJ in accordance with schedule in 40 CFR 63, Subpart JJ.

E.2.2 NESHAP Subpart JJ Requirements [40 CFR Part 63, Subpart JJ] [326 IAC 20-14]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart JJ (included as Attachment A to this permit), which are incorporated by reference as 326 IAC 20-14, for the surface coating operations identified as C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F23, F30, F38, F51, FM1, PN-1, PN-2, PN-3, and PB1-12:

- (1) 40 CFR 63.800 (except (f) and (g))
- (2) 40 CFR 63.801
- (3) 40 CFR 63.802 (except (b))
- (4) 40 CFR 63.803
- (5) 40 CFR 63.804 (except (d) and (e))
- (6) 40 CFR 63.805 (except (d)(7), (d)(9), (e)(4), and (e)(6))
- (7) 40 CFR 63.806

- (8) 40 CFR 63.807
- (9) 40 CFR 63.808
- (10) Table 1
- (11) Table 2
- (12) Table 3
- (13) Table 4
- (14) Table 5
- (15) Table 6

SECTION E.3

OPERATION CONDITIONS

Facility Description:

Insignificant Activities:

- (g) One (1) natural gas fired emergency generator, identified as EG2, constructed in 2014 and manufactured in 2014, with a maximum output of 27 HP.

This generator is an affected source under 40 CFR 60, Subpart JJJJ and a new affected source under 40 CFR 63, Subpart ZZZZ.

(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

E.3.1 General Provisions Relating to NSPS [40 CFR 60, Subpart A] [326 IAC 12-1]

- (a) Pursuant to 40 CFR 60.4246, the Permittee shall comply with the provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, except as otherwise specified in 40 CFR 60, Subpart JJJJ.

- (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.3.2 New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines [40 CFR 60, Subpart JJJJ] [326 IAC 12]

Pursuant to 40 CFR 60, Subpart JJJJ, the Permittee shall comply with the following provisions of 40 CFR 60, Subpart JJJJ (included as Attachment C of this permit), which are incorporated by reference as 326 IAC 12, for the natural gas emergency generator EG2, manufactured on or after January 1, 2009 and with a maximum output of greater than 25 HP:

- (1) 40 CFR 60.4230(a)(4)(iv)
- (2) 40 CFR 60.4233(d)
- (3) 40 CFR 60.4234
- (4) 40 CFR 60.4325
- (5) 40 CFR 60.4236
- (6) 40 CFR 60.4237(c)
- (7) 40 CFR 60.4243(d)
- (8) 40 CFR 60.4245(b)
- (9) 40 CFR 60.4248
- (10) Table 3

SECTION E.4

OPERATION CONDITIONS

Facility Description:

Insignificant Activities:

- (f) One (1) natural gas fired emergency generator, identified as EG1, constructed in 2003 and manufactured in 2003, with a maximum output of 16 HP.

This generator is an existing affected source under 40 CFR 63, Subpart ZZZZ.

- (g) One (1) natural gas fired emergency generator, identified as EG2, constructed in 2014 and manufactured in 2014, with a maximum output of 27 HP.

This generator is an affected source under 40 CFR 60, Subpart JJJJ and a new affected source under 40 CFR 63, Subpart ZZZZ.

(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

E.4.1 General Provisions Relating to NESHAP [40 CFR 63, Subpart A] [326 IAC 20-1]

- (a) Pursuant to 40 CFR 63.6580, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, except as otherwise specified in 40 CFR 63, Subpart ZZZZ, for emergency generator G2.

- (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

E.4.2 National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

- (a) The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment D of this permit), which are incorporated by reference as 326 IAC 20-82, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ, for the natural gas emergency generator (EG1):

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585
- (3) 40 CFR 63.6590(a)(1)(ii)
- (4) 40 CFR 63.6595(a)(1)
- (5) 40 CFR 63.6602
- (6) 40 CFR 63.6605

- (7) 40 CFR 63.6625(e)
- (8) 40 CFR 63.6640(f)
- (9) 40 CFR 63.6645(a)(5)
- (10) 40 CFR 63.6655(e)
- (11) 40 CFR 63.6660
- (12) 40 CFR 63.6665
- (13) Table 2c
- (14) Table 8

(b) The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment D of this permit), which are incorporated by reference as 326 IAC 20-82, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ, for the natural gas emergency generator EG2:

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585
- (3) 40 CFR 63.6590(c)(7)
- (4) 40 CFR 63.6665
- (5) 40 CFR 63.6670
- (6) 40 CFR 63.6675

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, Indiana 46526
Part 70 Permit No.: T039-34286-00014

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify) _____.
- Report (specify) _____.
- Notification (specify) _____.
- Affidavit (specify) _____.
- Other (specify) _____.

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, Indiana 46526
Part 70 Permit No.: T039-34286-00014

This form consists of 2 pages

Page 1 of 2

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
 - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

| |
|---|
| Facility/Equipment/Operation: |
| Control Equipment: |
| Permit Condition or Operation Limitation in Permit: |
| Description of the Emergency: |
| Describe the cause of the Emergency: |

If any of the following are not applicable, mark N/A

Page 2 of 2

| |
|---|
| Date/Time Emergency started: |
| Date/Time Emergency was corrected: |
| Was the facility being properly operated at the time of the emergency? Y N |
| Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other: |
| Estimated amount of pollutant(s) emitted during emergency: |
| Describe the steps taken to mitigate the problem: |
| Describe the corrective actions/response steps taken: |
| Describe the measures taken to minimize emissions: |
| If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value: |

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR MANAGEMENT
 COMPLIANCE AND ENFORCEMENT BRANCH**

**PART 70 OPERATING PERMIT
 Semi-Annual Report**

VOC and VHAP input - Wood Furniture NESHAP

Source Name: MasterBrand Cabinets, Inc.
 Source Address: 1002 Eisenhower Drive North, Goshen, Indiana 46526
 Part 70 Permit No.: T039-34286-00014
 Facility: Surface Coating
 Parameter: VOC and VHAPs - NESHAP
 Limit: (1) Finishing operations - 1.0 lb VHAP/lb Solids
 (2) Thinners used for on-site formulation of washcoats, basecoats and enamels - 3% VHAP content by weight
 (3) All other thinner mixtures - 10% VHAP content by weight
 (4) Foam adhesives meeting the upholstered seating flammability requirements - 1.8 lb VHAP/lb Solids
 (5) All other contact adhesives - 1.0 lb VHAP/lb Solids
 (6) Strippable spray booth material - 0.8 pounds VOC per pound solids

6-MONTH PERIOD: _____ YEAR: _____

| Month | Finishing Operations (lb VHAP/lb Solid) | Thinners used for on-site formulation (% by weight) | All other thinner mixtures (% by weight) | Foam adhesives (upholstered) (lb VHAP/lb Solid) | Contact adhesives (lb VHAP/lb Solid) | Strippable spray booth material (lb VOC/lb Solid) |
|-------|---|---|--|---|--------------------------------------|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, Indiana 46526
Part 70 Permit No.: T039-34286-00014
Facility: Surface coating operations C2, H12, H19, F3, F9, F15, F23, F30, F38, and F51.
Parameter: Volatile Organic Compounds (VOC)
Limit: The VOC input, including coatings, dilution solvents, and cleaning solvents to surface coating booths C2, H12, H19, F3, F9, F15, F23, F30, F38, and F51 shall be less than 248.8 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

The amount of VOC in the waste shipped offsite for recycling or disposal may be deducted from the monthly VOC input reported. Compliance with this limit shall be determined using the equation in Condition D.3.5(d).

QUARTER: _____ YEAR: _____

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|-------|------------|--------------------|---------------------|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: MasterBrand Cabinets, Inc.
 Source Address: 1002 Eisenhower Drive North, Goshen, Indiana 46526
 Part 70 Permit No.: T039-34286-00014
 Facility: Surface coating booths H1, H2, H3, H5, H6, H9, and H10
 Parameter: Volatile Organic Compounds (VOC)
 Limit: The VOC input, including coatings, dilution solvents, and cleaning solvents, to surface coating booths H1, H2, H3, H5, H6, H9, and H10 shall be limited to less than 250 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

The amount of VOC in the waste shipped offsite for recycling or disposal may be deducted from the monthly VOC input reported. Compliance with this limit shall be determined using the equation in Condition D.3.5(d).

QUARTER: _____ YEAR: _____

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|-------|------------|--------------------|---------------------|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, Indiana 46526
Part 70 Permit No.: T039-34286-00014
Facility: Booth FM1.
Parameter: Volatile Organic Compounds (VOC)
Limit: VOC input, including coatings, dilution solvents, and cleaning solvents, to booth FM1 shall be less than 40 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The amount of VOC in the waste shipped offsite for recycling or disposal may be deducted from the monthly VOC input reported. Compliance with this limit shall be determined using the equation in Condition D.3.5(d).

QUARTER: _____ YEAR: _____

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|-------|------------|--------------------|---------------------|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: MasterBrand Cabinets, Inc.
 Source Address: 1002 Eisenhower Drive North, Goshen, Indiana 46526
 Part 70 Permit No.: T039-34286-00014
 Facility: Surface coating operations PN-1, PN-2, PN-3, and PB1-12.
 Parameter: Volatile Organic Compounds (VOC)
 Limit: The VOC input, including coatings, dilution solvents, and cleaning solvents to the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) shall be less than 38 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

In order to determine compliance with this combined VOC limit, the Permittee shall calculate the combined VOC emissions using the following equation:

Total VOC emitted = [Total VOC input to PN-1, PN-2, PN-3, and PB1-12 x (1- overall control efficiency of regenerative thermal oxidizer from the most recent valid compliance demonstration, when RTO-1 is used for VOC control)] + [Total Uncontrolled VOC input to PN-1, PN-2, PN-3, and PB1-12 when RTO-1 is not used for VOC control] - Total waste VOC shipped offsite.

QUARTER: _____ YEAR: _____

| Month | Column 1 | | | Column 2 | | | Column 1 + Column 2 | | |
|-------|------------------|----------------------------|--------------------|--------------------|----------------------------|-------------------|---------------------|----------------------------|--------------------|
| | This Month | | | Previous 11 Months | | | 12 Month Total | | |
| | VOC Input (tons) | VOC Shipped Offsite (tons) | VOC Emitted (tons) | VOC Input (tons) | VOC Shipped Offsite (tons) | VOC Emitted (VOC) | VOC Input (tons) | VOC Shipped Offsite (tons) | VOC Emitted (tons) |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, Indiana 46526
Part 70 Permit No.: T039-34286-00014

Months: _____ to _____ Year: _____

Page 1 of 2

| | |
|---|-------------------------------|
| <p>This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C- General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p> | |
| <input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD. | |
| <input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD | |
| Permit Requirement (specify permit condition #) | |
| Date of Deviation: | Duration of Deviation: |
| Number of Deviations: | |
| Probable Cause of Deviation: | |
| Response Steps Taken: | |
| Permit Requirement (specify permit condition #) | |
| Date of Deviation: | Duration of Deviation: |
| Number of Deviations: | |
| Probable Cause of Deviation: | |
| Response Steps Taken: | |

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| Permit Requirement (specify permit condition #) | |
| Date of Deviation: | Duration of Deviation: |
| Number of Deviations: | |
| Probable Cause of Deviation: | |
| Response Steps Taken: | |
| Permit Requirement (specify permit condition #) | |
| Date of Deviation: | Duration of Deviation: |
| Number of Deviations: | |
| Probable Cause of Deviation: | |
| Response Steps Taken: | |
| Permit Requirement (specify permit condition #) | |
| Date of Deviation: | Duration of Deviation: |
| Number of Deviations: | |
| Probable Cause of Deviation: | |
| Response Steps Taken: | |

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

**Indiana Department of Environmental Management
Office of Air Quality**

**Technical Support Document (TSD) for a Part 70 Significant Source
Modification and Significant Permit Modification**

Source Description and Location

| | |
|--------------------------------------|--|
| Source Name: | MasterBrand Cabinets, Inc. |
| Source Location: | 1002 Eisenhower Dr. North, Goshen, Indiana 46526 |
| County: | Elkhart |
| SIC Code: | 2434 (Wood Kitchen Cabinets) |
| Operation Permit No.: | T 039-34286-00014 |
| Operation Permit Issuance Date: | December 12, 2014 |
| Significant Source Modification No.: | 039-34897-00014 |
| Significant Permit Modification No.: | 039-34964-00014 |
| Permit Reviewer: | Brian Wright |

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. T039-34897-00014 on December 12, 2014. There have been no subsequent approvals issued.

County Attainment Status

The source is located in Elkhart County.

| Pollutant | Designation |
|-------------------|--|
| SO ₂ | Better than national standards. |
| CO | Unclassifiable or attainment effective November 15, 1990. |
| O ₃ | Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹ |
| PM _{2.5} | Unclassifiable or attainment effective April 5, 2005, for the annual PM _{2.5} standard. |
| PM _{2.5} | Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard. |
| PM ₁₀ | Unclassifiable effective November 15, 1990. |
| NO ₂ | Cannot be classified or better than national standards. |
| Pb | Unclassifiable or attainment effective December 31, 2011. |

¹Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including Elkhart County, and is a maintenance area for the 1-hour National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005.

- (a) **Ozone Standards**
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 ozone. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM_{2.5}**
Elkhart County has been classified as attainment for PM_{2.5}. Therefore, direct PM_{2.5}, SO₂, and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (e) Other Criteria Pollutants
Elkhart 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

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Source Status - Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

| Pollutant | Emissions (ton/yr) |
|--------------------|--------------------|
| PM | < 241.28 |
| PM ₁₀ | < 241.37 |
| PM _{2.5} | < 241.37 |
| SO ₂ | 0.01 |
| NO _x | 1.76 |
| VOC | < 541.17 |
| CO | 1.29 |
| Highest Single HAP | 2,963 (MIBK) |
| Total HAPs | 9,349 |

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHGs emissions to determine operating permit applicability or PSD applicability to a source or modification.

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a PSD regulated pollutant, excluding GHGs, is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (d) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by MasterBrand Cabinets, Inc. on September 3, 2014, relating to the construction of operation of three (3) spray stations, a parts booth, a Regenerative Thermal Oxidizer (RTO), and a UV glaze process. The following is a list of the proposed emission units and pollution control device(s):

- (a) Three (3) spray stations, approved in 2015 for construction, identified as PN-1, PN-2, and PN-3, each with a maximum capacity of 360 parts per hour, utilizing high volume low pressure (HVLP) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.

The spray stations are affected units located at an existing source under the provisions of 40 CFR 63, Subpart JJ.

- (b) One (1) manual spray booth, approved in 2015 for construction, identified as PB1-12, with a maximum capacity of 140 parts per hour, utilizing high volume low pressure (HVLP) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.

The spray booth is an affected unit located at an existing source under the provisions of 40 CFR 63, Subpart JJ.

- (c) One (1) Regenerative thermal oxidizer, approved in 2015 for construction, identified as RTO-1, with a maximum heat input capacity of 4.04 MMBtu/hr.
- (d) One (1) natural gas-fired parts booth batch oven, approved in 2015 for construction, identified as EX BO 1, with a maximum heat input capacity of 0.5 MMBtu/hr.
- (e) One (1) UV and solvent glazing process, approved in 2015 for construction, with a maximum throughput of 0.075 gallons per hour, and using a syringe to apply coatings.

Enforcement Issues

There are no pending enforcement actions.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70 Modification to an Existing Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emission 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, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit. If the control equipment has been determined to be integral, the table reflects the PTE after consideration of the integral control device.

| Increase in PTE Before Controls of the Modification | |
|--|-----------------------------------|
| Pollutant | Potential To Emit (ton/yr) |
| PM | 1,011 |
| PM ₁₀ | 1,011 |
| PM _{2.5} | 1,011 |
| SO ₂ | 0.01 |
| NO _x | 1.95 |
| VOC | 2,539 |
| CO | 1.64 |
| Highest Single HAP | 286 (Toluene) |
| Total HAPs | 354 |

This source modification is subject to 326 IAC 2-7-10.5(g)(4) and (g)(6) because the potential to emit of PM, PM₁₀, and PM_{2.5}, and VOC are greater than 25 tons per year and are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d) because the modification requires significant changes in existing Part 70 monitoring permit terms and conditions.

Permit Level Determination – PSD or Emission Offset or Nonattainment NSR

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 significant source modification and significant permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

| Process / Emission Unit | Project Emissions (ton/yr) | | | | | | | |
|--------------------------------|-----------------------------------|------------------------|--------------------------|-----------------------|-----------------------|------------------------|-------------|--------------------------|
| | PM | PM₁₀ | PM_{2.5}* | SO₂ | NO_x | VOC | CO | GHGs |
| Spray Stations | Less than 24.50 | Less than 14.50 | Less than 9.50 | 0.00 | 0.00 | Less than 38.00 | 0.00 | 0 |
| Spray Booth | | | | 0.00 | 0.00 | | 0.00 | 0 |
| New NG | 0.04 | 0.15 | 0.15 | 0.01 | 1.95 | 0.11 | 1.64 | 2,353 |
| UV Glaze Process | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.86 | 0.00 | 0 |
| Total for Modification | Less than 24.35 | Less than 14.51 | Less than 9.61 | 0.01 | 1.95 | Less than 39.96 | 1.64 | 2,613 |
| PSD Major Source Thresholds | 250 | 250 | 250 | 250 | 250 | 250 | 250 | --- |
| Significant Thresholds | 25 | 15 | 10 | 40 | 40 | 40 | 100 | 75,000 CO ₂ e |

*PM_{2.5} listed is direct PM_{2.5}.

Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHGs emissions to determine operating permit applicability or PSD applicability to a source or modification.

Since this source is considered a major PSD source and the unrestricted potential to emit of this modification is greater than twenty-five (25) tons of PM per twelve (12) month consecutive period, fifteen (15) tons of PM₁₀ per twelve (12) month consecutive period, ten (10) tons of direct PM_{2.5} per twelve (12) month consecutive period, and 40 tons of VOC per twelve (12) month consecutive period, this source has elected to limit the potential to emit of this modification as follows:

- (a) The total PM, PM₁₀, and PM_{2.5} emissions from the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) shall not exceed the limits specified in the following table:

| Emission Unit ID | PM Limit (lb/hr) | PM ₁₀ Limit (lb/hr) | PM _{2.5} Limit (lb/hr) |
|------------------|------------------|--------------------------------|---------------------------------|
| PN1 | 1.39 | 0.82 | 0.54 |
| PN2 | 1.39 | 0.82 | 0.54 |
| PN3 | 1.39 | 0.82 | 0.54 |
| PB1-12 | 1.39 | 0.82 | 0.54 |

- (b) The VOC input, including coatings, dilution solvents, and cleaning solvents to the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) shall be less than 38 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month..

Compliance with these emission limits will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per twelve (12) month consecutive period, fifteen (15) tons of PM₁₀ per twelve (12) month consecutive period, ten (10) tons of direct PM_{2.5} per twelve (12) month consecutive period, and 40 tons of VOC per twelve (12) month consecutive period, and shall render the requirements of 326 IAC 2-2 not applicable.

Federal Rule Applicability Determination

NSPS:

- (a) The requirements of the New Source Performance Standard for Surface Coating of Metal Furniture, 40 CFR 60, Subpart EE (326 IAC 12), are not included in this modification since the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) do not coat metal furniture.
- (b) There are no New Source Performance Standards (326 IAC 12 and 40 CFR Part 60) included in this modification.

NESHAP:

- (c) The three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Wood Furniture Manufacturing Operations, 40 CFR 63, Subpart JJ (326 IAC 20-14) since these units are engaged in the manufacture of wood furniture and are located at a major source of HAPs. These units are located at an existing affected facility.

Nonapplicable portions of the NESHAP will not be included in the permit. The surface coating operations at this source are associated with the manufacture of wood furniture or components and are subject to the following portions of 40 CFR 63, Subpart JJ:

- (1) 40 CFR 63.800 (except (f) and (g))
 - (2) 40 CFR 63.801
 - (3) 40 CFR 63.802 (except (b))
 - (4) 40 CFR 63.803
 - (5) 40 CFR 63.804 (except (d) and (e))
 - (6) 40 CFR 63.805 (except (d)(7), (d)(9), (e)(4), and (e)(6))
 - (7) 40 CFR 63.806
 - (8) 40 CFR 63.807
 - (9) 40 CFR 63.808
 - (10) Table 1
 - (11) Table 2
 - (12) Table 3
 - (13) Table 4
 - (14) Table 5
 - (15) Table 6
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products, 40 CFR 63, Subpart QQQQ (326 IAC 20-79), are not included in this modifications because the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) do not coat wood building products as defined under 40 CFR 63.4781.
- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture, 40 CFR 63, Subpart RRRR (326 IAC 20-78), are not included in this permit because the facility does not manufacture metal furniture and not a major source of HAP.
- (f) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this permit renewal.

CAM

- (g) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:
- (1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;
 - (2) is subject to an emission limitation or standard for that pollutant; and
 - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

| |
|-----------------------------------|
| CAM Applicability Analysis |
|-----------------------------------|

| Emission Unit | Control Device Used | Emission Limitation (Y/N) | Uncontrolled PTE (ton/yr) | Controlled PTE (ton/yr) | Part 70 Major Source Threshold (ton/yr) | CAM Applicable (Y/N) | Large Unit (Y/N) |
|------------------------------|---------------------|---------------------------|---------------------------|-------------------------|---|----------------------|------------------|
| PN1 - VOC | RTO | Y | 910.21 | 9.10 | 100 | Y | N |
| PN1 - PM, PM10, and PM2.5 | Dry Filter and RTO | Y | 303.98 | 0.18 | 100 | Y | N |
| PN2 - VOC | RTO | Y | 910.21 | 9.10 | 100 | Y | N |
| PN2 - PM, PM10, and PM2.5 | Dry Filter and RTO | Y | 303.98 | 0.18 | 100 | Y | N |
| PN3 - VOC | RTO | Y | 362.86 | 3.63 | 100 | Y | N |
| PN3 - PM, PM10, and PM2.5 | Dry Filter and RTO | Y | 284.39 | 0.17 | 100 | Y | N |
| PB1-12 - VOC | RTO | Y | 353.97 | 3.54 | 100 | Y | N |
| PB1-12 - PM, PM10, and PM2.5 | Dry Filter and RTO | Y | 118.22 | 0.07 | 100 | Y | N |

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) for VOC and PM upon issuance of the Title V Renewal. A CAM plan must be submitted as part of the Renewal application.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-1.1-5 (Nonattainment New Source Review)

Nonattainment New Source Review applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

326 IAC 2-2 and 2-3 (PSD and Emission Offset)

PSD and Emission Offset applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

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

The operation of three the (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) will each emit greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 would apply to the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12), however, pursuant to 326 IAC 2-4.1-1(b)(2), because these units are specifically regulated by NESHAP 40 CFR 63, Subpart JJ, which was issued pursuant to Section 112(d) of the CAA, these units are exempt from the requirements of 326 2-4.1.

326 IAC 2-6 (Emission Reporting)

Since this source has a potential to emit VOC greater than or equal to two hundred and fifty (250) tons per year, an emission statement covering the previous calendar year must be submitted by July 1 of each year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 2-7-6(5) (Annual Compliance Certification)

The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certification that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

State Rule Applicability – Individual Facilities

Surface Coating

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

Pursuant to 326 IAC 6-3-1(b)(15), the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) are each subject to the requirements of 326 IAC 6-3, since each has the potential to use equal to or greater than five (5) gallons per day of surface coatings. Pursuant to 326 IAC 6-3-2(d), particulate from each of the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) shall each be controlled by dry particulate filter, waterwash, or equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

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

Pursuant to 326 IAC 8-1-6(1)(a), the requirement to reduce VOC emissions using the Best Available Control Technology (BACT) does not apply to the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) because these operations are subject to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating).

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

Pursuant to 326 IAC 8-2-12, the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) shall utilize one of the following methods:

- Airless Spray Application
- Air Assisted Airless Spray Application
- Electrostatic Spray Application
- Electrostatic Bell or Disc Application
- Heated Airless Spray Application
- Roller Coating
- Brush or Wipe Application
- Dip-and Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pound per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

The source utilizes High Volume Low Pressure (HVLP) spray application or Air Assisted Airless Spray application methods for all surface coating operations; therefore, the source is able to comply with 326 IAC 8-2-12.

326 IAC 8-11 (Wood Furniture Coatings)

Pursuant to 326 IAC 8-11(1), the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) are not subject to the requirements of 326 IAC 8-11 since the source is not located in Lake, Porter, Clark, or Floyd Counties.

Natural Gas Combustion

326 IAC 6-2 (Particulate Emissions Limitations for Source of Indirect Heating)

Pursuant to 326 IAC 6-2-4, the regenerative thermal oxidizer (RTO-1) and parts booth curing oven (EX BO 1) are not subject to the requirements of 326 IAC 6-2 because they are not sources of indirect heating.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-1(b)(14), the regenerative thermal oxidizer (RTO-1) and parts booth curing oven (EX BO 1) are not subject to the requirements of 326 IAC 6-3-2 since the potential particulate emissions for each unit are less than 0.551 pounds per hour.

UV Coating Operation

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-1(b)(15), the UV coating operation is not subject to the requirements of 326 IAC 6-3 because the operation uses less than 5 gallons per day of coating.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
 The UV coating operation is not subject to the requirements of 326 IAC 8-1-6, since each has unlimited VOC potential emissions of less than twenty-five (25) tons per year.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)
 Pursuant to 326 IAC 8-2-1(a)(4), the UV coating operation is each not subject to the requirements of 326 IAC 8-2-12 since each has unlimited VOC emissions of less than fifteen (15) pounds per day.

326 IAC 8-11 (Wood Furniture Coatings)
 Pursuant to 326 IAC 8-11(1), the UV coating operation is not subject to the requirements of 326 IAC 8-11 since the source is not located in Lake, Porter, Clark, or Floyd Counties.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Changes to the compliance determination and monitoring requirements are detailed in the Proposed Changes section of this document.

The Compliance Determination Requirements applicable to this modification are as follows:

- (a) When the regenerative thermal oxidizer (RTO-1) is in operation, the Permittee shall comply with the following:

| Control | Parameter | Frequency | Range | Excursions and Exceedances |
|-------------------------------|-------------|------------|--------------------------------------|----------------------------|
| Regenerative Thermal Oxidizer | Temperature | Continuous | 3-hour average temperature of 1400°F | Response steps |

| Control | Parameter | Frequency | Range | Excursions and Exceedances |
|-------------------------------|-------------------------------|-----------|--------------|----------------------------|
| Regenerative Thermal Oxidizer | Duct Pressure or Fan Amperage | Daily | Normal Range | Response steps |

The temperature and duct pressure monitoring is necessary when the thermal oxidizer is in operation because the regenerative thermal oxidizer associated with three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) must operate properly to ensure compliance the limits that render 326 IAC 2-2 (PSD) not applicable.

(b) The three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) each have applicable compliance monitoring conditions as specified below:

(a) Particulate from all of the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) shall be controlled by dry particulate filters and the Permittee shall operate the control devices in accordance with manufacturer's specifications. Each of these surface coating operations have applicable compliance monitoring conditions as specified below:

The Permittee shall implement an operator training program.

- (1) All operators that perform surface coating operations using spray equipment or booth maintenance shall be trained in the proper set-up and operation of the particulate control systems. All existing operators shall be trained within 60 days of the date of permit issuance. All new operators shall be trained upon hiring or transfer.
- (2) Training shall include proper filter alignment, filter inspection and maintenance, water wash inspection and maintenance, and troubleshooting practices. The training program shall be written and retained on site. The training program shall include a description of the methods to be used at the completion of initial and refresher training to demonstrate and document successful completion. Copies of the training program, the list of trained operators and training records shall be maintained on site.
- (3) All operators shall be given refresher training annually.

These monitoring conditions are necessary because the dry filters for the surface coating operations must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-2 (PSD), and 326 IAC 2-7 (Part 70). Note: these monitoring conditions will not satisfy the requirements of CAM if any of the existing booths, or additional booths in the future should become subject to the requirements of CAM.

(c) PM/PM10/PM2.5 Control

In order to comply with the PSD PM, PM10, and PM2.5 limits, the dry filters for PM control shall be in operation and control emissions from the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) at all times that surface coating operation are in operation.

(d) Testing Requirements

The testing requirements applicable to this source are as follows:

- (1) No later than 180 days after startup of the surface coating operations (spray stations PN1, PN2, and PN3, and spray booth PB1-12), in order to demonstrate compliance with Condition D.3.1(e)(1), the Permittee shall perform PM, PM10, and PM2.5 testing of the emissions from spray stations PN1, PN2, and PN3, and spray booth PB1-12 at the inlet and outlet to the regenerative thermal oxidizer (RTO-1) utilizing method approved by the commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.
- (2) No later than 180 days after startup of any one (1) of the surface coating operations (spray stations PN1, PN2, and PN3, or spray booth PB1-12), the Permittee shall perform inlet and outlet VOC testing of the regenerative thermal oxidizer (RTO-1) utilizing method approved by the commissioner in order to determine the overall VOC control efficiency. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

During the most recent stack test, the overall VOC control efficiency (CE) shall be determined as follows:

$$CE = \frac{VOC_{IN} - VOC_{OUT}}{VOC_{IN}}$$

Where:

- CE = Overall VOC Control Efficiency of RTO-1
VOC_{IN} = Total VOC Input to RTO-1 controlling PN-1, PN-2, PN-3, and PB1-12
VOC_{OUT} = Total VOC Output from RTO-1 controlling PN-1, PN-2, PN-3, and PB1-12

These testing requirements are necessary to demonstrate compliance with the PM/PM10/PM2.5 and VOC limits that render 326 IAC 2-2 (PSD) not applicable.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T039-34286-00014. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Modification No. 1:

Section A.2 and A.3 have been amended as follows in order to incorporate the new units:

- A.2 Emission Units and Pollution Control Equipment Summary
~~[326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]~~

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

- (c) **Three (3) spray stations, approved in 2015 for construction, identified as PN-1, PN-2, and PN-3, each with a maximum capacity of 360 parts per hour, utilizing high volume low pressure (HVLP) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.**

The spray stations are affected units located at an existing source under the provisions of 40 CFR 63, Subpart JJ.

- (d) **One (1) manual spray booth, approved in 2015 for construction, identified as PB1-12, with a maximum capacity of 140 parts per hour, utilizing high volume low pressure (HVLP) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.**

The spray booth is an affected unit located at an existing source under the provisions of 40 CFR 63, Subpart JJ.

A.3 Specifically Regulated Insignificant Activities
[326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (i) **One (1) Regenerative thermal oxidizer, approved in 2015 for construction, identified as RTO-1, with a maximum heat input capacity of 4.04 MMBtu/hr.**
- (j) **One (1) natural gas-fired parts booth batch oven, approved in 2015 for construction, identified as EX BO 1, with a maximum heat input capacity of 0.5 MMBtu/hr.**
- (k) **One (1) UV and solvent glazing process, approved in 2015 for construction, identified as WS1, with a maximum throughput of 0.075 gallons per hour, and using a syringe to apply coatings.**

Modification No. 2:

Section D.3 has been amended as follows in order to incorporate the new units and requirements:

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Surface Coating

- (c) **Three (3) spray stations, approved in 2015 for construction, identified as PN-1, PN-2, and PN-3, each with a maximum capacity of 360 parts per hour, utilizing high volume low pressure (HVLP) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.**

The spray stations are affected units located at an existing source under the provisions of 40 CFR 63, Subpart JJ.

- (d) **One (1) manual spray booth, approved in 2015 for construction, identified as PB1-12, with a maximum capacity of 140 parts per hour, utilizing high volume low pressure (HVLP) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.**

The spray booth is an affected unit located at an existing source under the provisions of 40 CFR 63, Subpart JJ.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 PSD and Emission Offset Limit [326 IAC 2-2][326 IAC 2-3]

(e) Pursuant to Significant Source Modification No. 039-34897-00014, the Permittee shall comply with the following:

(1) The total PM, PM₁₀, and PM_{2.5} emissions from the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) shall not exceed the limits specified in the following table:

| Emission Unit ID | PM Limit (lb/hr) | PM ₁₀ Limit (lb/hr) | PM _{2.5} Limit (lb/hr) |
|------------------|------------------|--------------------------------|---------------------------------|
| PN1 | 1.39 | 0.82 | 0.54 |
| PN2 | 1.39 | 0.82 | 0.54 |
| PN3 | 1.39 | 0.82 | 0.54 |
| PB1-12 | 1.39 | 0.82 | 0.54 |

(4) The total VOC emissions from the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) shall not exceed 38 tons of VOC per twelve (12) consecutive month period.

Compliance with these emission limits will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per twelve (12) month consecutive period, fifteen (15) tons of PM₁₀ per twelve (12) month consecutive period, ten (10) tons of direct PM_{2.5} per twelve (12) month consecutive period, and 40 tons of VOC per twelve (12) month consecutive period, and therefore will render the requirements of 326 IAC 2-2 not applicable.

Compliance Determination Requirements

D.3.5 Volatile Organic Compounds (VOC)

- (a) Compliance with the VOC limitation contained in Conditions D.3.1(b) (c), and (d), and (e)(2) shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets or Certified Product Data Sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- (b) When using the regenerative thermal oxidizer (RTO-1) to comply with Condition D.3.1(e)(2) for one or more of the surface coating operations (spray stations PN1, PN2, and PN3, and spray booth PB1-12), the regenerative thermal oxidizer shall be in operation at all times that those surface coating operations are in operation.
- (c) When limiting VOC input to comply with Conditions D.3.1(b), (c), (d), and (e)(2), the amount of VOC in the waste shipped offsite for recycling or disposal may be deducted from the monthly VOC input reported. The Permittee shall determine the VOC content of the waste shipped offsite using one or a combination of the following methods:
- (1) On-Site Sampling

- (A) VOC content shall be determined pursuant to 326 IAC 8-1-4(a)(3) by EPA Reference Method 24 and the sampling procedures in 326 IAC 8-1-4 or other methods as approved by the Commissioner.
- (B) A representative sample of the VOC containing waste to be shipped offsite shall be analyzed within 90 days of the issuance of this permit 039-34897-00014.
- (C) If multiple cleanup solvent waste streams are collected and drummed separately, a sample shall be collected and analyzed from each solvent waste stream.
- (D) A new representative sample shall be collected and analyzed whenever a change or changes occur(s) that could result in a cumulative 10% or more decrease in the VOC content of the VOC containing waste. Such change could include, but is not limited to, the following:
 - (i) A change in coating selection or formulation, as supplied or as applied, or a change in solvent selection or formulation, or
 - (ii) An operational change in the coating application or cleanup operations.

The new VOC content shall be used in calculating the amount of VOC shipped offsite, starting with the date that the change occurred. The sample shall be collected and analyzed within 30 days of the change.

- (2) Certified Waste Report: The VOC reported by analysis of an offsite waste processor may be used, provided the report certifies the amount of VOC in the waste.
 - (3) VOC content: The VOC content of the waste shipped offsite may be determined using the "as supplied" and "as applied" VOC data sheets for the material used, for each month.
 - (4) IDEM reserves the right to request a representative sample of the VOC containing waste stream and conduct an analysis for VOC content.
- (d) Compliance with the VOC input limitations contained in Conditions D.3.1(b), (c), and (d) shall be demonstrated within 30 days of the end of each month. This shall be based on the total volatile organic compound input for the previous month, minus the amount VOC in the waste shipped out for recycling or disposal, and adding it to previous 11 months total VOC input, minus the amount VOC in the waste shipped out for recycling or disposal, so as to arrive at VOC input for the most recent twelve (12) consecutive month period.

The VOC input for a month shall be calculated using the following equation:

$$VOC\ input = SCL - SR$$

Where:

SCL = The total amount of VOC, in tons, delivered to the coating applicators, including coatings, dilution solvents, and cleaning solvents, at the surface coating booths; and

SR = The total amount of VOC, in tons, shipped out for either recycling or disposal, including coatings, dilution solvents, and cleaning solvents, from the surface coating booths.

- (e) In order to determine compliance with Condition D.3.1(e)(2), the Permittee shall calculate the VOC emissions using the following equations:

Total VOC emitted = [Total VOC input to PN-1, PN-2, PN-3, and PB1-12 x (1- overall control efficiency of regenerative thermal oxidizer from the most recent valid compliance demonstration, when RTO-1 is used for VOC control)] + [Total Uncontrolled VOC input to PN-1, PN-2, PN-3, and PB1-12 when RTO-1 is not used for VOC control] - Total waste VOC shipped offsite.

D.3.6 Particulate Control

- (a) Particulate from all of the surface coating operations at the source, identified as C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F38, F23, F30, F51, FM1, PN-1, PN-2, PN-3, and PB1-12 shall be controlled by dry particulate filters, waterwashes, or an equivalent control device, and the Permittee shall operate the control devices in accordance with manufacturer's specifications.
- (b) If PM, PM10, and/or PM2.5 testing under Condition D.3.7(a) demonstrates that one or more of the surface coating operations (spray stations PN1, PN2, and PN3, and spray booth PB1-12) must be controlled by the regenerative thermal oxidizer (RTO-1) in order to demonstrate compliance with Condition D.3.1(e)(1), then the RTO-1 shall be in operation at all times that those surface coating operations are in operation.

D.3.7 Testing Requirements [326 IAC 2-1.1-11]

- (a) No later than 180 days after startup of the surface coating operations (spray stations PN1, PN2, and PN3, and spray booth PB1-12), in order to demonstrate compliance with Condition D.3.1(e)(1), the Permittee shall perform PM, PM10, and PM2.5 testing of the emissions from spray stations PN1, PN2, and PN3, and spray booth PB1-12 at the inlet and outlet to the regenerative thermal oxidizer (RTO-1) utilizing method approved by the commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.
- (b) No later than 180 days after startup of any one (1) of the surface coating operations (spray stations PN1, PN2, and PN3, or spray booth PB1-12), the Permittee shall perform inlet and outlet VOC testing of the regenerative thermal oxidizer (RTO-1) utilizing method approved by the commissioner in order determine the overall VOC control efficiency. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

During the most recent stack test, the overall VOC control efficiency (CE) shall be determined as follows:

$$CE = \frac{VOC_{IN} - VOC_{OUT}}{VOC_{IN}}$$

Where:

CE = Overall VOC Control Efficiency of RTO-1

VOC_{IN} = Total VOC Input to RTO-1 controlling PN-1, PN-2, PN-3, and PB1-12

VOC_{OUT} = Total VOC Output from RTO-1 controlling PN-1, PN-2, PN-3, and PB1-12

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.68 Monitoring

- (a) ~~Particulate from all of t~~The surface coating operations at the source, identified as C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F38, F23, F30, F51, and FM1, **PN-1, PN-2, PN-3, and PB1-12** shall be controlled by dry particulate filters, waterwashes, or an equivalent control device, and the Permittee shall operate the control devices in accordance with manufacturer's specifications. Each of these surface coating operations have applicable compliance monitoring conditions as specified below:

D.3.9 Thermal Oxidizer Temperature

- (a) **A continuous monitoring system shall be calibrated and maintained on the thermal oxidizer for measuring operating temperature. The monitoring system shall be operated when the RTO-1 is being used to comply with Condition 3.1(e)(2). For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as 3-hour average. From the date of startup until the stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature of 1,400°F.**
- (b) **The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Condition D.3.1(e)(2) (if the thermal oxidizer is used to comply with the VOC limitation under Condition D.3.1(e)(2)).**
- (c) **On and after the date the stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test. When, for any one reading, the 3-hour average temperature falls below the temperature listed above or the average temperature established during the latest stack test, the Permittee shall take reasonable steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A 3-hour temperature that falls below the above mentioned temperature is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.**

D.3.10 Parametric Monitoring

- (a) **The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with limits in Condition D.3.1(e)(2) (if the thermal oxidizer is used to comply with the VOC limitation under Condition D.3.1(e)(2)).**
- (b) **The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. On and after the date the stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in most recent compliant stack test. When, for any one reading, the duct pressure or fan amperage is outside the appropriate range established during the latest stack test, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A duct pressure or fan amperage reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.**

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.711 Record Keeping Requirements

- (a) To document the compliance status with Conditions D.3.1(b), (c), ~~and (d)~~, **and (e)(2)** the Permittee shall maintain records in accordance with (1) through ~~(57)~~ below. Records maintained for (1) through ~~(57)~~ shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC ~~usage~~ **input** limits and/or the VOC emission limits established in Conditions D.3.1(b), (c), ~~and (d)~~, **and (e)(2) and to document the quantity of any VOC shipped offsite and deducted from total reported VOC input.** Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- *****
- (4) The total VOC ~~usage~~ **input** for each month **and each compliance period**; and
- (5) The weight of VOCs emitted for each **month and each** compliance period.
- (6) **Records indicating when VOC emissions from PN-1, PN-2, PN-3, and PB1-12 were controlled by the thermal oxidizer and when VOC emissions from PN-1, PN-2, PN-3, and PB1-12 were not controlled by the thermal oxidizer.**
- (7) **When the amount of VOC in waste material is being deducted from the VOC input in order to comply with Conditions D.3.1(b), (c), (d), and (e)(2), then the following records shall be maintained:**
- (A) **The amount of VOC containing waste shipped out to be recycled or disposed each month. If multiple cleanup solvent waste streams are collected and drummed separately, the amount shipped out shall be recorded separately for each used solvent stream.**
- (B) **The VOC content of the waste and all records necessary to verify the amount and VOC content of the VOC containing waste shipped out for recycling or disposal.**
- (C) **The weight of VOC input, minus the weight of VOC shipped out to be recycled or disposed, for each compliance period.**
- (b) To document the compliance status with Condition D.3.68, the Permittee shall maintain copies of the training program, the list of trained operators, and training records shall be maintained on site.
- (c) **To document the compliance status with Conditions D.3.9 and D.3.10, the Permittee shall maintain records in accordance with the following:**
- (1) **The continuous temperature records (on a 3-hour average basis) for the regenerative thermal oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test. The Permittee shall include in its daily record when a temperature reading is not taken and the reason for the lack of temperature reading (e.g., the regenerative thermal oxidizer was not operating).**
- (2) **Daily records of the duct pressure or fan amperage. The Permittee shall include in its daily record when a pressure or fan amperage reading is not taken and the reason for the lack of pressure or fan amperage reading (e.g., the regenerative thermal oxidizer was not operating).**
- (ed) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.3.812 Reporting Requirements

Quarterly summaries of the information to document the compliance status with Conditions D.3.1(b), (c), ~~and (d)~~, **and (e)(2)** shall be submitted, using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1(35).

Modification No. 3:

Section E.2 has been amended as follows in order to incorporate the new units:

SECTION E.2 FACILITY OPERATION CONDITIONS

| |
|---|
| Facility Description [326 IAC 2-7-5(15)]: Surface Coating |
| <p>(c) Three (3) spray stations, approved in 2015 for construction, identified as PN-1, PN-2, and PN-3, each with a maximum capacity of 360 parts per hour, utilizing high volume low pressure (HVLP) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.</p> <p>The spray stations are affected units located at an existing source under the provisions of 40 CFR 63, Subpart JJ.</p> |
| <p>(d) One (1) manual spray booth, approved in 2015 for construction, identified as PB1-12, with a maximum capacity of 140 parts per hour, utilizing high volume low pressure (HVLP) and air assisted airless spray applicators, using a regenerative thermal oxidizer (RTO-1) as VOC control as necessary and dry filters for particulate control, and exhausting to RTO-1.</p> <p>The spray booth is an affected unit located at an existing source under the provisions of 40 CFR 63, Subpart JJ.</p> |
| <p>(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)</p> |

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.2.1 General Provisions Relating to NESHAP JJ [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.800, The Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1 for the surface coating operations identified as C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F23, F30, F38, F51, ~~and FM1~~, **PN-1, PN-2, PN-3, and PB1-12**, as specified in Table 1 of 40 CFR Part 63, Subpart JJ in accordance with schedule in 40 CFR 63, Subpart JJ.

E.2.2 NESHAP Subpart JJ Requirements [40 CFR Part 63, Subpart JJ] [326 IAC 20-14]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart JJ (included as Attachment A to this permit), which are incorporated by reference as 326 IAC 20-14, for the surface coating operations identified as C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F23, F30, F38, F51, ~~and FM1~~, **PN-1, PN-2, PN-3, and PB1-12**:

Modification No. 5:

The following reporting forms have been amended in order to allow for the amount of VOC in waste material is being deducted from the VOC input:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: MasterBrand Cabinets, Inc.
 Source Address: 1002 Eisenhower Drive North, Goshen, Indiana 46526
 Part 70 Permit No.: T039-34286-00014
 Facility: Surface coating operations C2, H12, H19, F3, F9, F15, F23, F30, F38, and F51.
 Parameter: Volatile Organic Compounds (VOC)
 Limit: The VOC input, including coatings, dilution solvents, and cleaning solvents to surface coating booths C2, H12, H19, F3, F9, F15, F23, F30, F38, and F51 shall be less than 248.8 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

The amount of VOC in the waste shipped offsite for recycling or disposal may be deducted from the monthly VOC input reported. Compliance with this limit shall be determined using the equation in Condition D.3.5(d).

QUARTER: _____ YEAR: _____

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|-------|------------|--------------------|---------------------|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, Indiana 46526
Part 70 Permit No.: T039-34286-00014
Facility: Surface coating booths H1, H2, H3, H5, H6, H9, and H10
Parameter: Volatile Organic Compounds (VOC)
Limit: The VOC input, including coatings, dilution solvents, and cleaning solvents, to surface coating booths H1, H2, H3, H5, H6, H9, and H10 shall be limited to less than 250 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

The amount of VOC in the waste shipped offsite for recycling or disposal may be deducted from the monthly VOC input reported. Compliance with this limit shall be determined using the equation in Condition D.3.5(d).

QUARTER: _____ YEAR: _____

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|-------|------------|--------------------|---------------------|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, Indiana 46526
Part 70 Permit No.: T039-34286-00014
Facility: Booth FM1.
Parameter: Volatile Organic Compounds (VOC)
Limit: VOC input, including coatings, dilution solvents, and cleaning solvents, to booth FM1 shall be less than 40 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

The amount of VOC in the waste shipped offsite for recycling or disposal may be deducted from the monthly VOC input reported. Compliance with this limit shall be determined using the equation in Condition D.3.5(d).

QUARTER: _____ YEAR: _____

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|-------|------------|--------------------|---------------------|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Modification No. 4:

The following reporting form has been added to the permit in order to document compliance with the Condition D.3.1(e):

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE AND ENFORCEMENT BRANCH**

Part 70 Quarterly Report

Source Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, Indiana 46526
Part 70 Permit No.: T039-34286-00014
Facility: Surface coating operations PN-1, PN-2, PN-3, and PB1-12.
Parameter: Volatile Organic Compounds (VOC)
Limit: The VOC input, including coatings, dilution solvents, and cleaning solvents to the three (3) spray stations (PN1, PN2, and PN3) and spray booth (PB1-12) shall be less than 38 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month.

In order to determine compliance with this combined VOC limit, the Permittee shall calculate the combined VOC emissions using the following equation:

Total VOC emitted = [Total VOC input to PN-1, PN-2, PN-3, and PB1-12 x (1- overall control efficiency of regenerative thermal oxidizer from the most recent valid compliance demonstration, when RTO-1 is used for VOC control)] + [Total Uncontrolled VOC input to PN-1, PN-2, PN-3, and PB1-12 when RTO-1 is not used for VOC control] - Total waste VOC shipped offsite.

QUARTER: _____ YEAR: _____

| Month | Column 1 | | | Column 2 | | | Column 1 + Column 2 | | |
|-------|------------------|----------------------------|--------------------|--------------------|----------------------------|-------------------|---------------------|----------------------------|--------------------|
| | This Month | | | Previous 11 Months | | | 12 Month Total | | |
| | VOC Input (tons) | VOC Shipped Offsite (tons) | VOC Emitted (tons) | VOC Input (tons) | VOC Shipped Offsite (tons) | VOC Emitted (VOC) | VOC Input (tons) | VOC Shipped Offsite (tons) | VOC Emitted (tons) |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

| |
|--------------------------------------|
| Conclusion and Recommendation |
|--------------------------------------|

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 039-34897-00014 and Significant Permit Modification No. 039-34964-00014. The staff recommends to the Commissioner that this Part 70 Minor or Significant Source and Minor or Significant Permit Modification be approved.

| |
|---------------------|
| IDEM Contact |
|---------------------|

- (a) Questions regarding this proposed permit can be directed to Brian Wright 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) 234-6544 or toll free at 1-800-451-6027 extension 4-6544.
- (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 Permit Guide on the Internet at: <http://www.in.gov/idem/5881.htm>; and the Citizens' Guide to IDEM on the Internet at: <http://www.in.gov/idem/6900.htm>.

**Appendix A: Emissions Calculations
Emissions Summary**

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Significant Source Mod No.: 039-34897-00014
Significant Permit Mod No.: 039-34964-00014
Reviewer: Brian Wright

Uncontrolled/Unlimited Potential to Emit (PTE) (tons/year) (Before Integral Woodworking Controls)

| Emission Units | PM | PM-10 | PM2.5 | SO2 | NOx | VOC | CO | GHGs as CO2e | Total HAPs | Single HAP | |
|----------------------|---------------|---------------|---------------|-------------|-------------|--------------|-------------|--------------|--------------|--------------|---------------|
| Surface Coating | 760.50 | 760.50 | 760.50 | 0.00 | 0.00 | 1,451 | 0.00 | 0 | 9,348 | 2,963 | MIBK |
| Woodworking | 18,591 | 18,591 | 18,591 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0.00 | |
| NG Boilers | 0.02 | 0.10 | 0.10 | 0.01 | 1.29 | 0.07 | 1.08 | 1,555 | 0.02 | 0.02 | Hexane |
| Emergency Generators | 0.00 | 0.00 | 0.00 | 0.00 | 0.26 | 0.01 | 0.03 | 11 | 0.01 | 0.00 | |
| Banding Process | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.61 | 0.00 | 0 | 0.61 | 0.61 | Vinyl Acetate |
| UV Glaze Process | 0.00 | 0.02 | 0.02 | 0.00 | 0.21 | 1.68 | 0.18 | 259 | 0.36 | 0.35 | Toluene |
| Spray Stations | 892.36 | 892.36 | 892.36 | 0.00 | 0.00 | 2,183.28 | 0.00 | 0 | 293.62 | 239.20 | Toluene |
| Spray Booths | 118.22 | 118.22 | 118.22 | 0.00 | 0.00 | 353.97 | 0.00 | 0 | 59.26 | 46.51 | Touene |
| NG Combustion | 0.04 | 0.15 | 0.15 | 0.01 | 1.95 | 0.11 | 1.64 | 2,353 | 0.04 | 0.04 | Hexane |
| UV Glaze Process | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.86 | 0.00 | 0 | 0.60 | 0.60 | Methanol |
| Totals | 20,362 | 20,363 | 20,363 | 0.02 | 3.71 | 3,993 | 2.93 | 4,179 | 9,703 | 2,963 | MIBK |

Unlimited Potential to Emit (PTE) (tons/year) (After Integral Woodworking Controls)

| Emission Units | PM | PM-10 | PM2.5 | SO2 | NOx | VOC | CO | GHGs as CO2e | Total HAPs | Single HAP | |
|----------------------|--------------|--------------|--------------|-------------|-------------|--------------|-------------|--------------|--------------|--------------|---------------|
| Surface Coating | 760.50 | 760.50 | 760.50 | 0.00 | 0.00 | 1,451 | 0.00 | 0 | 9,348 | 2,963 | MIBK |
| Woodworking | 18.59 | 18.59 | 18.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0.00 | |
| NG Boilers | 0.02 | 0.10 | 0.10 | 0.01 | 1.29 | 0.07 | 1.08 | 1,555 | 0.02 | 0.02 | Hexane |
| Emergency Generators | 0.00 | 0.00 | 0.00 | 0.00 | 0.26 | 0.01 | 0.03 | 11 | 0.01 | 0.00 | |
| Banding Process | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.61 | 0.00 | 0 | 0.61 | 0.61 | Vinyl Acetate |
| UV Glaze Process | 0.00 | 0.02 | 0.02 | 0.00 | 0.21 | 1.68 | 0.18 | 259 | 0.36 | 0.35 | Toluene |
| Spray Stations | 892.36 | 892.36 | 892.36 | 0.00 | 0.00 | 2,183.28 | 0.00 | 0.00 | 293.62 | 239.20 | Toluene |
| Spray Booths | 118.22 | 118.22 | 118.22 | 0.00 | 0.00 | 353.97 | 0.00 | 0.00 | 59.26 | 46.51 | Touene |
| NG Combustion | 0.04 | 0.15 | 0.15 | 0.01 | 1.95 | 0.11 | 1.64 | 2,353.34 | 0.04 | 0.04 | Hexane |
| UV Glaze Process | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.86 | 0.00 | 0.00 | 0.60 | 0.60 | Methanol |
| Totals | 1,790 | 1,790 | 1,790 | 0.02 | 3.71 | 3,993 | 2.93 | 4,179 | 9,703 | 2,963 | MIBK |

Limited Potential to Emit (PTE) (tons/year) (based on limits that render 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable)

| Emission Units | PM | PM-10 | PM2.5 | SO2 | NOx | VOC | CO | GHGs as CO2e | Total HAPs | Single HAP | |
|----------------------|-------------------------|-------------------------|-------------------------|-------------|-------------|-------------------------|-------------|--------------|--------------|--------------|---------------|
| Surface Coating | Less Than 188.43 | Less Than 188.43 | Less Than 188.43 | 0.00 | 0.00 | Less Than 538.80 | 0.00 | 0 | 9,348 | 2,963 | MIBK |
| Woodworking | 52.82 | 52.82 | 52.82 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0.00 | |
| NG Boilers | 0.02 | 0.10 | 0.10 | 0.01 | 1.29 | 0.07 | 1.08 | 1,555 | 0.02 | 0.02 | Hexane |
| Emergency Generators | 0.00 | 0.00 | 0.00 | 0.00 | 0.26 | 0.01 | 0.03 | 11 | 0.01 | 0.00 | |
| Banding Process | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.61 | 0.00 | 0.00 | 0.61 | 0.61 | Vinyl Acetate |
| UV Glaze Process | 0.00 | 0.02 | 0.02 | 0.00 | 0.21 | 1.68 | 0.18 | 259.18 | 0.36 | 0.35 | Toluene |
| Spray Stations | Less Than 24.35 | Less Than 14.37 | Less Than 9.46 | 0.00 | 0.00 | Less Than 38.00 | 0.00 | 0.00 | 293.62 | 239.20 | Toluene |
| Spray Booths | 24.35 | 14.37 | 9.46 | 0.00 | 0.00 | 38.00 | 0.00 | 0.00 | 59.26 | 46.51 | Touene |
| NG Combustion | 0.04 | 0.15 | 0.15 | 0.01 | 1.95 | 0.11 | 1.64 | 2,353.34 | 0.04 | 0.04 | Hexane |
| UV Glaze Process | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.86 | 0.00 | 0.00 | 0.60 | 0.60 | Methanol |
| Totals | Less Than 265.67 | Less Than 255.88 | Less Than 250.98 | 0.02 | 3.71 | Less Than 581.14 | 2.93 | 4,179 | 9,703 | 2,963 | MIBK |

Limited and Controlled Potential to Emit (PTE) (tons/year)

| Emission Units | PM | PM-10 | PM2.5 | SO2 | NOx | VOC | CO | GHGs as CO2e | Total HAPs | Single HAP | |
|----------------------|------------------------|------------------------|------------------------|-------------|-------------|-------------------------|-------------|-----------------|-----------------|--------------|---------------|
| Surface Coating | 12.12 | 12.12 | 12.12 | 0.00 | 0.00 | 538.80 | 0.00 | 0 | 9,348 | 2,963 | MIBK |
| Woodworking | 18.59 | 18.59 | 18.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0.00 | |
| NG Boilers | 0.02 | 0.10 | 0.10 | 0.01 | 1.29 | 0.07 | 1.08 | 1,555 | 0.02 | 0.02 | Hexane |
| Emergency Generators | 0.00 | 0.00 | 0.00 | 0.00 | 0.26 | 0.01 | 0.03 | 11 | 0.01 | 0.00 | |
| Banding Process | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.61 | 0.00 | 0.00 | 0.61 | 0.61 | Vinyl Acetate |
| UV Glaze Process | 0.00 | 0.02 | 0.02 | 0.00 | 0.21 | 1.68 | 0.18 | 259.18 | 0.36 | 0.35 | Toluene |
| Spray Stations | 12.22 | 12.22 | 12.22 | 0.00 | 0.00 | 21.83 | 0.00 | 0.00 | 293.62 | 239.20 | Toluene |
| Spray Booths | 0.61 | 0.61 | 0.61 | 0.00 | 0.00 | 3.54 | 0.00 | 0.00 | 59.26 | 46.51 | Touene |
| NG Combustion | 0.04 | 0.15 | 0.15 | 0.01 | 1.95 | 0.11 | 1.64 | 2,353.34 | 0.04 | 0.04 | Hexane |
| UV Glaze Process | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.86 | 0.00 | 0.00 | 0.60 | 0.60 | Methanol |
| Totals | Less Than 43.61 | Less Than 43.80 | Less Than 43.80 | 0.02 | 3.71 | Less Than 566.65 | 2.93 | 4,179.02 | 9,702.22 | 2,963 | MIBK |

**Appendix A: Emissions Calculations
Modification Summary**

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Significant Source Mod No.: 039-34897-00014
Significant Permit Mod No.: 039-34964-00014
Reviewer: Brian Wright

Uncontrolled/Unlimited Potential to Emit (PTE) (tons/year)

| Emission Units | PM | PM-10 | PM2.5 | SO2 | NOx | VOC | CO | GHGs as CO2e | Total HAPs | Single HAP | |
|------------------|--------------|--------------|--------------|-------------|-------------|--------------|-------------|--------------|------------|------------|----------------|
| Spray Stations | 892.36 | 892.36 | 892.36 | 0.00 | 0.00 | 2,183 | 0.00 | 0 | 294 | 239 | Toluene |
| Spray Booth | 118.22 | 118.22 | 118.22 | 0.00 | 0.00 | 353.97 | 0.00 | 0 | 59.26 | 46.51 | Toluene |
| New NG | 0.04 | 0.15 | 0.15 | 0.01 | 1.95 | 0.11 | 1.64 | 2,353 | 0.04 | 0.04 | Hexane |
| UV Glaze Process | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.86 | 0.00 | 0 | 0.60 | 0.60 | Methanol |
| Totals | 1,011 | 1,011 | 1,011 | 0.01 | 1.95 | 2,539 | 1.64 | 2,353 | 354 | 286 | Toluene |

Limited Potential to Emit (PTE) (tons/year) (based on limits that render 326 IAC 2-2 (PSD) not applicable)

| Emission Units | PM | PM-10 | PM2.5 | SO2 | NOx | VOC | CO | GHGs as CO2e | Total HAPs | Single HAP | |
|------------------|------------------------|------------------------|-----------------------|-------------|-------------|------------------------|-------------|--------------|------------|------------|----------------|
| Spray Stations | Less Than 24.35 | Less Than 14.37 | Less Than 9.46 | 0.00 | 0.00 | Less Than 38.00 | 0.00 | 0 | 294 | 239 | Toluene |
| Spray Booth | 24.35 | 14.37 | 9.46 | 0.00 | 0.00 | 38.00 | 0.00 | 0 | 59.26 | 46.51 | Toluene |
| New NG | 0.04 | 0.15 | 0.15 | 0.01 | 1.95 | 0.11 | 1.64 | 2,353 | 0.04 | 0.04 | Hexane |
| UV Glaze Process | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.86 | 0.00 | 0.00 | 0.60 | 0.60 | Methanol |
| Totals | Less Than 24.39 | Less Than 14.51 | Less Than 9.61 | 0.01 | 1.95 | Less Than 39.96 | 1.64 | 2,353 | 354 | 286 | Toluene |

Controlled Potential to Emit (PTE) (tons/year)

| Emission Units | PM | PM-10 | PM2.5 | SO2 | NOx | VOC | CO | GHGs as CO2e | Total HAPs | Single HAP | |
|------------------|--------------|--------------|--------------|-------------|-------------|--------------|-------------|--------------|------------|------------|----------------|
| Spray Stations | 12.22 | 12.22 | 12.22 | 0.00 | 0.00 | 21.83 | 0.00 | 0 | 294 | 239 | Toluene |
| Spray Booth | 0.61 | 0.61 | 0.61 | 0.00 | 0.00 | 3.54 | 0.00 | 0 | 59.26 | 46.51 | Toluene |
| New NG | 0.04 | 0.15 | 0.15 | 0.01 | 1.95 | 0.11 | 1.64 | 2,353.34 | 0.04 | 0.04 | Hexane |
| UV Glaze Process | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.86 | 0.00 | 0.00 | 0.60 | 0.60 | Methanol |
| Totals | 12.87 | 12.98 | 12.98 | 0.01 | 1.95 | 27.34 | 1.64 | 2,353 | 354 | 286 | Toluene |

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

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Permit Number: T039-34286-00014
Reviewer: Brian Wright

| | | | |
|--------------|---------------------------------|--------------|---------------------------------|
| Unit | Heat Input Capacity MMBtu/hr | HHV mmBtu | Potential Throughput MMCF/yr |
| B4 | 1.5 | mmscf | |
| B5 | 1.5 | | |
| Total | 3.0 | 1020 | 25.8 |

| Emission Factor in lb/MMCF | Pollutant | | | | | | |
|-------------------------------|-----------|-------|---------------|------|--------------------|------|------|
| | PM* | PM10* | direct PM2.5* | SO2 | NOx | VOC | CO |
| | 1.9 | 7.6 | 7.6 | 0.6 | 100 **see below | 5.5 | 84 |
| Potential Emission in tons/yr | 0.02 | 0.10 | 0.10 | 0.01 | 1.29 | 0.07 | 1.08 |

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

PM2.5 emission factor is filterable and condensable PM2.5 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, ChBrian Wrighter 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

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

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

| Emission Factor in lb/MMcf | HAPs - Organics | | | | | Total - Organics |
|-------------------------------|-----------------|-----------------|--------------|---------|---------|------------------|
| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene | |
| | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 | |
| Potential Emission in tons/yr | 2.7E-05 | 1.5E-05 | 9.7E-04 | 2.3E-02 | 4.4E-05 | 0.024 |

| Emission Factor in lb/MMcf | HAPs - Metals | | | | | Total - Metals |
|-------------------------------|---------------|---------|----------|-----------|-------------------|----------------|
| | Lead | Cadmium | Chromium | Manganese | Nickel | |
| | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 | |
| Potential Emission in tons/yr | 6.4E-06 | 1.4E-05 | 1.8E-05 | 4.9E-06 | 2.7E-05 | 7.1E-05 |
| | | | | | Total HAPs | 0.024 |
| | | | | | Worst HAP | 0.023 |

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, ChBrian Wrighter 1.4.

Greenhouse Gas Calculations

| Emission Factor in lb/MMcf | Greenhouse Gas | | |
|---------------------------------------|----------------|------|------|
| | CO2 | CH4 | N2O |
| | 120,000 | 2.3 | 2.2 |
| Potential Emission in tons/yr | 1,546 | 0.03 | 0.03 |
| Summed Potential Emissions in tons/yr | 1,546 | | |
| CO2e Total in tons/yr | 1,555 | | |

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O

Potential Emission ton/yr x N2O GWP (298).

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Permit Number: 1039-34286-00014
Reviewer: Brian Wright

| Emission Unit / Surface coating booth | Material | Density (lb/gal) | Weight % Volatile (H2O & Organics) | Weight % Water | Weight % Organics | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Pounds VOC per gallon of less water | Pounds VOC per gallon of coating | Potential VOC pounds per hour | Potential VOC pounds per day | Potential VOC tons per year | lb VOC/gal solids | Transfer Efficiency | Uncontrolled PMPM10/PM2.5 Potential (lb/hr) | Uncontrolled PMPM10/PM2.5 Potential (tons/year) | PMPM10/PM2.5 Control Efficiency | Controlled PMPM10/PM2.5 Potential (lb/hr) | Controlled PMPM10/PM2.5 Potential (tons/year) | Limited PMPM10/PM2.5 Potential (lb/hr) | Limited PMPM10/PM2.5 Potential (tons/year) | Equivalent Limited Efficiency | |
|---------------------------------------|------------------------|------------------|------------------------------------|----------------|-------------------|----------------|---------------------------------|------------------------|---------------------|-------------------------------------|----------------------------------|-------------------------------|------------------------------|-----------------------------|-------------------|---------------------|---|---|---------------------------------|---|---|--|--|-------------------------------|---------------|
| C2 | worst case coating VOC | 7.68 | 73.98% | 0.00% | 85.38% | 0.00% | 19.84% | 0.0137 | 25 | 5.02 | 5.02 | 1.72 | 41.27 | 7.53 | 25.31 | 41% | 0.41 | 1.78 | 98.76% | 0.01 | 0.02 | 0.10 | 0.44 | 75.33% | |
| | Worst Case coating PM | 7.68 | 73.98% | 0.00% | 85.38% | 0.00% | 19.84% | 0.0137 | 25 | 5.02 | 5.02 | 1.72 | 41.27 | 7.53 | 25.31 | 41% | 0.41 | 1.78 | 98.76% | 0.01 | 0.02 | 0.10 | 0.44 | 75.33% | |
| H1 | worst case coating VOC | 9.73 | 52.96% | 0.00% | 45.21% | 0.00% | 30.41% | 0.0182 | 375 | 4.40 | 4.40 | 30.02 | 720.55 | 131.50 | 14.47 | 41% | 18.43 | 80.73 | 97.85% | 0.40 | 1.74 | 4.57 | 20.02 | 75.20% | |
| | Worst Case coating PM | 9.73 | 52.96% | 0.00% | 45.21% | 0.00% | 30.41% | 0.0182 | 375 | 4.40 | 4.40 | 30.02 | 720.55 | 131.50 | 14.47 | 41% | 18.43 | 80.73 | 97.85% | 0.40 | 1.74 | 4.57 | 20.02 | 75.20% | |
| H2 | worst case coating VOC | 9.73 | 52.96% | 0.00% | 45.21% | 0.00% | 30.41% | 0.0182 | 375 | 4.40 | 4.40 | 30.02 | 720.55 | 131.50 | 14.47 | 41% | 18.43 | 80.73 | 97.85% | 0.40 | 1.74 | 4.57 | 20.02 | 75.20% | |
| | Worst Case coating PM | 9.73 | 52.96% | 0.00% | 45.21% | 0.00% | 30.41% | 0.0182 | 375 | 4.40 | 4.40 | 30.02 | 720.55 | 131.50 | 14.47 | 41% | 18.43 | 80.73 | 97.85% | 0.40 | 1.74 | 4.57 | 20.02 | 75.20% | |
| H3 | worst case coating VOC | 9.73 | 52.96% | 0.00% | 45.21% | 0.00% | 30.41% | 0.0182 | 375 | 4.40 | 4.40 | 30.02 | 720.55 | 131.50 | 14.47 | 41% | 18.43 | 80.73 | 97.85% | 0.40 | 1.74 | 4.57 | 20.02 | 75.20% | |
| | Worst Case coating PM | 9.73 | 52.96% | 0.00% | 45.21% | 0.00% | 30.41% | 0.0182 | 375 | 4.40 | 4.40 | 30.02 | 720.55 | 131.50 | 14.47 | 41% | 18.43 | 80.73 | 97.85% | 0.40 | 1.74 | 4.57 | 20.02 | 75.20% | |
| H5 | worst case coating VOC | 8.92 | 60.51% | 0.00% | 58.46% | 0.00% | 24.98% | 0.0065 | 375 | 5.21 | 5.21 | 12.71 | 305.06 | 55.67 | 20.88 | 41% | 5.07 | 22.19 | 97.85% | 0.11 | 0.54 | 1.42 | 6.22 | 75.29% | |
| | Worst Case coating PM | 9.06 | 55.90% | 0.00% | 53.68% | 0.00% | 24.32% | 0.0065 | 375 | 4.86 | 4.86 | 11.85 | 284.51 | 51.92 | 20.00 | 41% | 5.75 | 25.17 | 97.85% | 0.12 | 0.54 | 1.42 | 6.22 | 75.29% | |
| H6 | worst case coating VOC | 8.92 | 60.51% | 0.00% | 58.46% | 0.00% | 24.98% | 0.0065 | 375 | 5.21 | 5.21 | 12.71 | 305.06 | 55.67 | 20.88 | 41% | 5.07 | 22.19 | 97.85% | 0.11 | 0.54 | 1.42 | 6.22 | 100.00% | |
| | Worst Case coating PM | 9.06 | 55.90% | 0.00% | 53.68% | 0.00% | 24.32% | 0.0065 | 375 | 4.86 | 4.86 | 11.85 | 284.51 | 51.92 | 20.00 | 41% | 5.75 | 25.17 | 97.85% | 0.12 | 0.54 | 1.42 | 6.22 | 75.29% | |
| H9 | worst case coating VOC | 7.85 | 64.00% | 0.00% | 54.83% | 0.00% | 33.83% | 0.0137 | 375 | 4.30 | 4.30 | 22.11 | 530.70 | 96.85 | 12.72 | 41% | 8.57 | 37.52 | 97.85% | 0.18 | 0.81 | 2.12 | 9.29 | 75.25% | |
| | Worst Case coating PM | 7.85 | 64.00% | 0.00% | 54.83% | 0.00% | 33.83% | 0.0137 | 375 | 4.30 | 4.30 | 22.11 | 530.70 | 96.85 | 12.72 | 41% | 8.57 | 37.52 | 97.85% | 0.18 | 0.81 | 2.12 | 9.29 | 75.25% | |
| H10 | worst case coating VOC | 7.85 | 64.00% | 0.00% | 54.83% | 0.00% | 33.83% | 0.0137 | 375 | 4.30 | 4.30 | 22.11 | 530.70 | 96.85 | 12.72 | 41% | 8.57 | 37.52 | 97.85% | 0.18 | 0.81 | 2.12 | 9.29 | 75.25% | |
| | Worst Case coating PM | 7.85 | 64.00% | 0.00% | 54.83% | 0.00% | 33.83% | 0.0137 | 375 | 4.30 | 4.30 | 22.11 | 530.70 | 96.85 | 12.72 | 41% | 8.57 | 37.52 | 97.85% | 0.18 | 0.81 | 2.12 | 9.29 | 75.25% | |
| H12 | worst case coating VOC | 8.92 | 60.51% | 0.00% | 58.46% | 0.00% | 24.98% | 0.0065 | 75 | 5.21 | 5.21 | 2.54 | 61.01 | 11.13 | 20.88 | 47% | 0.91 | 3.99 | 97.85% | 0.02 | 0.09 | 0.62 | 3.59 | 75.24% | |
| | Worst Case coating PM | 9.73 | 52.96% | 0.00% | 45.21% | 0.00% | 30.41% | 0.0182 | 75 | 4.40 | 4.40 | 6.00 | 144.11 | 26.30 | 14.47 | 47% | 3.31 | 14.50 | 97.85% | 0.07 | 0.31 | 0.62 | 3.59 | 75.24% | |
| H19 | worst case coating VOC | 7.85 | 64.00% | 0.00% | 54.83% | 0.00% | 33.83% | 0.0137 | 25 | 4.30 | 4.30 | 1.47 | 35.38 | 6.46 | 12.72 | 47% | 0.51 | 2.25 | 97.85% | 0.01 | 0.05 | 0.13 | 0.57 | 74.66% | |
| | Worst Case coating PM | 7.85 | 64.00% | 0.00% | 54.83% | 0.00% | 33.83% | 0.0137 | 25 | 4.30 | 4.30 | 1.47 | 35.38 | 6.46 | 12.72 | 47% | 0.51 | 2.25 | 97.85% | 0.01 | 0.05 | 0.13 | 0.57 | 74.66% | |
| F3 | worst case coating VOC | 8.01 | 93.46% | 71.21% | 22.25% | 68.44% | 4.48% | 0.0099 | 1000 | 5.65 | 1.78 | 17.57 | 421.75 | 76.97 | 19% | 4.18 | 18.33 | 98.76% | 0.05 | 0.23 | 0.09 | 0.38 | 1.73 | 75.28% | |
| | Worst Case coating PM | 8.37 | 89.53% | 83.66% | 5.87% | 84.03% | 8.54% | 0.0099 | 1000 | 3.08 | 0.49 | 4.84 | 116.27 | 21.22 | 5.75 | 19% | 7.00 | 30.66 | 98.76% | 0.09 | 0.38 | 1.73 | 7.58 | 75.28% | |
| F9 | worst case coating VOC | 8.01 | 93.46% | 71.21% | 22.25% | 68.44% | 4.48% | 0.0099 | 1000 | 5.65 | 1.78 | 17.57 | 421.75 | 76.97 | 19% | 4.18 | 18.33 | 98.76% | 0.05 | 0.23 | 0.09 | 0.38 | 1.73 | 75.28% | |
| | Worst Case coating PM | 8.37 | 89.53% | 83.66% | 5.87% | 84.03% | 8.54% | 0.0099 | 1000 | 3.08 | 0.49 | 4.84 | 116.27 | 21.22 | 5.75 | 19% | 7.00 | 30.66 | 98.76% | 0.09 | 0.38 | 1.73 | 7.58 | 75.28% | |
| F15 | worst case coating VOC | 7.63 | 69.55% | 0.00% | 47.42% | 0.00% | 23.72% | 0.0127 | 1000 | 3.62 | 3.62 | 45.95 | 1102.81 | 201.28 | 15.25 | 36% | 18.88 | 82.71 | 98.50% | 0.28 | 1.24 | 4.68 | 20.50 | 75.22% | |
| | Worst Case coating PM | 7.63 | 69.55% | 0.00% | 47.42% | 0.00% | 23.72% | 0.0127 | 1000 | 3.62 | 3.62 | 45.95 | 1102.81 | 201.28 | 15.25 | 36% | 18.88 | 82.71 | 98.50% | 0.28 | 1.24 | 4.68 | 20.50 | 75.22% | |
| F23 | worst case coating VOC | 8.03 | 0.94% | 0.00% | 0.04% | 0.00% | 99.95% | 0.0031 | 1000 | 0.00 | 0.00 | 0.01 | 0.27 | 0.05 | 0.00 | 52% | 13.43 | 58.83 | 99.76% | 0.03 | 0.14 | 3.33 | 14.59 | 75.21% | |
| | Worst Case coating PM | 9.63 | 0.94% | 0.00% | 0.04% | 0.00% | 99.95% | 0.0031 | 1000 | 0.00 | 0.00 | 0.01 | 0.27 | 0.05 | 0.00 | 52% | 13.43 | 58.83 | 99.76% | 0.03 | 0.14 | 3.33 | 14.59 | 75.21% | |
| F30 | worst case coating VOC | 9.45 | 0.94% | 0.00% | 0.94% | 0.00% | 98.79% | 0.0031 | 1000 | 0.09 | 0.09 | 0.28 | 6.61 | 1.21 | 0.09 | 52% | 13.93 | 61.01 | 99.76% | 0.03 | 0.15 | 3.45 | 15.11 | 75.23% | |
| | Worst Case coating PM | 9.45 | 0.94% | 0.00% | 0.94% | 0.00% | 98.79% | 0.0031 | 1000 | 0.09 | 0.09 | 0.28 | 6.61 | 1.21 | 0.09 | 52% | 13.93 | 61.01 | 99.76% | 0.03 | 0.15 | 3.45 | 15.11 | 75.23% | |
| F38 | worst case coating VOC | 8.08 | 70.07% | 0.00% | 70.07% | 0.00% | 22.93% | 0.0098 | 1000 | 5.66 | 5.66 | 55.48 | 1331.62 | 243.02 | 24.69 | 36% | 15.17 | 66.44 | 98.50% | 0.23 | 1.00 | 3.76 | 16.47 | 75.21% | |
| | Worst Case coating PM | 8.08 | 70.07% | 0.00% | 70.07% | 0.00% | 22.93% | 0.0098 | 1000 | 5.66 | 5.66 | 55.48 | 1331.62 | 243.02 | 24.69 | 36% | 15.17 | 66.44 | 98.50% | 0.23 | 1.00 | 3.76 | 16.47 | 75.21% | |
| F51 | worst case coating VOC | 7.85 | 64.00% | 0.00% | 54.83% | 0.00% | 33.83% | 0.0137 | 25 | 4.30 | 4.30 | 1.47 | 35.38 | 6.46 | 12.72 | 47% | 0.51 | 2.25 | 97.85% | 0.01 | 0.03 | 0.13 | 0.57 | 74.66% | |
| | Worst Case coating PM | 7.85 | 64.00% | 0.00% | 54.83% | 0.00% | 33.83% | 0.0137 | 25 | 4.30 | 4.30 | 1.47 | 35.38 | 6.46 | 12.72 | 47% | 0.51 | 2.25 | 97.85% | 0.01 | 0.03 | 0.13 | 0.57 | 74.66% | |
| FM1 | worst case coating VOC | 7.85 | 64.00% | 0.00% | 54.83% | 0.00% | 33.83% | 0.2554 | 25 | 4.30 | 4.30 | 27.48 | 659.49 | 120.36 | 12.72 | 47% | 9.56 | 41.98 | 97.85% | 0.12 | 0.52 | 2.37 | 10.38 | 75.21% | |
| | Worst Case coating PM | 7.85 | 64.00% | 0.00% | 54.83% | 0.00% | 33.83% | 0.2554 | 25 | 4.30 | 4.30 | 27.48 | 659.49 | 120.36 | 12.72 | 47% | 9.56 | 41.98 | 97.85% | 0.12 | 0.52 | 2.37 | 10.38 | 75.21% | |
| TOTALS | | | | | | | | | | | | | 331.27 | 7950.49 | 1450.96 | | | | | 173.63 | 760.50 | 2.77 | 12.12 | 43.02 | 188.43 |

| Emission Unit / Surface coating booth | Limited VOC Emissions |
|---|----------------------------|
| C2, H12, H19, F3, F9, F15, F23, F30, F38, and F51 | Less Than 248.90 tons/year |
| H1, H2, H3, H5, H6, H9, and H10 | Less Than 250.00 tons/year |
| FM1 | Less Than 40.00 tons/year |
| Totals | 538.80 |

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1-Weight % Volatiles) * (1+Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

* Source will limit VOC emissions from the ten (10) spray booths (C2, H12, H19, F3, F9, F15, F23, F30, F38, and F51) to less than 248.8 tons per year to render 326 IAC 2-2 (PSD) not applicable.
* Source will limit VOC emissions from the seven (7) spray booths H1, H2, H3, H5, H6, H9, and H10 to less than 250 tons per year to render 326 IAC 2-2 (PSD) not applicable.
** Source will limit PM and PM10 emissions from the entire source to less than 250 tons per year each to render the requirements of 326 IAC 2-2 (PSD) not applicable.

**Appendix A: Emission Calculations
HAP Emission Calculations
From Surface Coating Operations**

**Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Permit Number: T039-34286-00014
Reviewer: Brian Wright**

Surface Coating for emission units: C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F23, F30, F38, and F51

| Material | Density (Lb/Gal) | Gallons of Material (gal/unit) | Maximum (unit/hour) | Weight % Xylene | Weight % Toluene | Weight % Ethyl Benzene | Weight % Glycol Ether | Weight % MIBK | Weight % Formaldehyde | Xylene Emissions (ton/yr) | Toluene Emissions (ton/yr) | Ethyl Benzene Emissions (ton/yr) | Glycol Ether Emissions (ton/yr) | MIBK Emissions (ton/yr) | Formaldehyde Emissions (ton/yr) |
|---|------------------|--------------------------------|---------------------|-----------------|------------------|------------------------|-----------------------|---------------|-----------------------|---------------------------|----------------------------|----------------------------------|---------------------------------|-------------------------|---------------------------------|
| Varnish | | | | | | | | | | | | | | | |
| L025013 | 7.86 | 0.0540 | 2000 | 0.04% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 1.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 972-50C27-0150 | 7.58 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 1.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 35.86 | 0.00 |
| 1735C40313 | 7.80 | 0.0540 | 2000 | 8.00% | 13.00% | 1.50% | 0.00% | 0.00% | 0.00% | 295.18 | 479.66 | 55.35 | 0.00 | 0.00 | 0.00 |
| 1735C40307 | 7.71 | 0.0540 | 2000 | 8.00% | 13.00% | 0.00% | 0.00% | 0.00% | 0.00% | 291.77 | 474.13 | 0.00 | 0.00 | 0.00 | 0.00 |
| UV Spray Sealer | 9.58 | 0.0540 | 2000 | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.36 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 |
| UV Spray Topcoat | 9.11 | 0.0540 | 2000 | 0.27% | 0.10% | 0.05% | 0.00% | 0.00% | 0.00% | 11.51 | 4.22 | 2.33 | 0.00 | 0.00 | 0.00 |
| Varnish | 7.95 | 0.0360 | 1000 | 10.00% | 15.00% | 5.00% | 0.00% | 20.00% | 0.10% | 125.36 | 188.03 | 62.68 | 0.00 | 250.71 | 1.25 |
| Varnish | 7.95 | 0.0360 | 1000 | 10.00% | 15.00% | 5.00% | 0.00% | 20.00% | 0.10% | 125.36 | 188.03 | 62.68 | 0.00 | 250.71 | 1.25 |
| Stains | | | | | | | | | | | | | | | |
| L019131 | 8.43 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Toffee Spray A/B Stain | 7.26 | 0.0540 | 2000 | 0.00% | 1.50% | 0.00% | 43.00% | 0.00% | 0.00% | 0.00 | 51.51 | 0.00 | 1476.74 | 0.00 | 0.00 |
| Frost Wiping Stain | 7.42 | 0.0540 | 2000 | 8.00% | 0.00% | 1.00% | 0.00% | 0.00% | 0.00% | 280.80 | 0.00 | 35.10 | 0.00 | 0.00 | 0.00 |
| Burgundy Wipe Stain | 7.43 | 0.0540 | 2000 | 8.00% | 0.00% | 4.00% | 0.00% | 0.00% | 0.00% | 281.17 | 0.00 | 140.59 | 0.00 | 0.00 | 0.00 |
| Carmel Spray Stain | 7.05 | 0.0540 | 2000 | 0.00% | 0.00% | 1.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 33.35 | 0.00 | 0.00 | 0.00 |
| L.H. Ash Wiping Stain | 8.03 | 0.0540 | 2000 | 4.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 151.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sorrell Stain | 7.12 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 4.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 134.72 | 0.00 | 0.00 |
| White Primer | 9.81 | 0.0540 | 2000 | 6.00% | 22.00% | 1.00% | 0.00% | 9.00% | 0.10% | 278.43 | 1020.91 | 46.41 | 0.00 | 417.65 | 4.59 |
| L.H. Ash Wiping Stain | 7.98 | 0.0540 | 2000 | 4.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 150.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LH Sign Med W/S | 9.16 | 0.0540 | 2000 | 17.00% | 0.00% | 4.00% | 0.00% | 0.00% | 0.00% | 736.62 | 0.00 | 173.32 | 0.00 | 0.00 | 0.00 |
| Burgundy Pre-stain | 6.80 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 4.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 128.67 | 0.00 | 0.00 |
| Hickory Wipe Stain | 6.64 | 0.0540 | 2000 | 3.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 94.23 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1310D00937 | 6.72 | 0.0540 | 2000 | 2.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 63.58 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| W.B. Opal | 10.18 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| KBR Silk Enamel | 9.12 | 0.0540 | 2000 | 0.00% | 5.00% | 0.00% | 10.00% | 20.00% | 0.10% | 0.00 | 215.71 | 0.00 | 431.41 | 862.82 | 4.31 |
| Light Hickory UV Stain | 8.31 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Stain | 12.10 | 0.0540 | 2000 | 0.00% | 5.00% | 1.00% | 0.00% | 20.00% | 0.10% | 0.00 | 286.19 | 57.24 | 0.00 | 1144.76 | 5.72 |
| Total PTE of HAPs (tons/year) | | | | | | | | | | 1294.37 | 2382.76 | 413.63 | 1908.15 | 2962.51 | 17.14 |
| PTE of Total Combined HAPs (tons/year) for this page | | | | | | | | | | | | | 8978.57 | | |

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

** NESHAP 40 CFR 63, Subpart JJ - The source has demonstrated compliance with Subpart JJ by submitting Certified Product Data Sheet Reports for each coating used.

** Each stain, sealer and topcoat has a VHAP content of no more than 1.0 lb VHAP/lb solids, as applied.

**Appendix A: Emission Calculations
HAP Emission Calculations
From Surface Coating Operations**

**Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Permit Number: T039-34286-00014
Reviewer: Brian Wright**

Surface Coating for emission units: C2, H1, H2, H3, H5, H6, H9, H10, H12, H19, F3, F9, F15, F23, F30, F38, and F51

| Material | Density (Lb/Gal) | Gallons of Material (gal/unit) | Maximum (unit/hour) | Weight % Acetaldehyde | Weight % Styrene | Weight % Acrolein | Weight % Mn Cmpd. | Weight % Cumene | Acetaldehyde Emissions (ton/yr) | Styrene Emissions (ton/yr) | Acrolein Emissions (ton/yr) | Mn Cmpd. Emissions (ton/yr) | Cumene Emissions (ton/yr) |
|------------------------|------------------|--------------------------------|---------------------|-----------------------|------------------|-------------------|-------------------|-----------------|---------------------------------|----------------------------|-----------------------------|-----------------------------|---------------------------|
| Varnish | | | | | | | | | | | | | |
| L025013 | 7.86 | 0.0540 | 2000 | 0.06% | 1.30% | 0.06% | 0.00% | 0.00% | 2.37 | 48.29 | 2.37 | 0.00 | 0.00 |
| 972-50C27-0150 | 7.58 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1735C40313 | 7.80 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1735C40307 | 7.71 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| UV Spray Sealer | 9.58 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.004% | 0.00 | 0.00 | 0.00 | 0.00 | 0.18 |
| UV Spray Topcoat | 9.11 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.01% | 0.00 | 0.00 | 0.00 | 0.00 | 0.26 |
| Varnish | 7.95 | 0.0360 | 1000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Varnish | 7.95 | 0.0360 | 1000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Stains | | | | | | | | | | | | | |
| L019131 | 8.43 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Toffee Spray A/B Stain | 7.26 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Frost Wiping Stain | 7.42 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Burgundy Wipe Stain | 7.43 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Carmel Spray Stain | 7.05 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| L.H. Ash Wiping Stain | 8.03 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sorrell Stain | 7.12 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| White Primer | 9.81 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| L.H. Ash Wiping Stain | 7.98 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| LH Sign Med W/S | 9.16 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 2.00% | 0.00% | 0.00 | 0.00 | 0.00 | 86.66 | 0.00 |
| Burgundy Prestain | 6.80 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hickory Wipe Stain | 6.64 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1310D00937 | 6.72 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| W.B. Opal | 10.18 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| KBR Silk Enamel | 9.12 | 0.0540 | 2000 | 0.00% | 5.00% | 0.00% | 0.00% | 0.00% | 0.00 | 215.71 | 0.00 | 0.00 | 0.00 |
| Light Hickory UV Stain | 8.31 | 0.0540 | 2000 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Stain | 12.10 | 0.0540 | 2000 | 0.01% | 0.00% | 0.001% | 0.00% | 0.00% | 0.46 | 0.00 | 0.06 | 0.00 | 0.00 |

| | | | | | |
|--------------------------------------|-------------|---------------|-------------|--------------|-------------|
| Total PTE of HAPs (tons/year) | 2.83 | 264.00 | 2.43 | 86.66 | 0.44 |
|--------------------------------------|-------------|---------------|-------------|--------------|-------------|

| | |
|---|---------------|
| PTE of Total Combined HAPs (tons/year) for this page | 356.35 |
|---|---------------|

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Mn Cmpd. emission rate (tons/yr) = Density (lb/gal) * Gal. of Material (gal/unit) * Maximum (unit/hr) * Weight % Mn Cmpd. * (1-Wt. % Volatile) * (1-Transfer Eff.) * 8760 hrs/yr * 1 ton/2000 lbs

NESHAP 40 CFR 63, Subpart JJ - The source has demonstrated compliance with Subpart JJ by submitting Certified Product Data Sheet Reports for each coating used.

The source has verified that each stain, sealer and topcoat has a VHAP content of no more than 1.0 lb VHAP/lb solids, as applied.

**Appendix A: Emission Calculations
HAP Emission Calculations
From Surface Coating Operation FM1**

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Permit Number: T039-34286-00014
Reviewer: Brian Wright

Surface Coating for emission units: FM1 only

| Material | Density (Lb/Gal) | Gallons of Material (gal/unit) | Maximum (unit/hour) | Weight % MIBK | Weight % Xylene | Weight % Ethyl Benzene | MIBK Emissions (ton/yr) | Xylene Emissions (ton/yr) | Ethyl Benzene Emissions (ton/yr) |
|-------------------------|------------------|--------------------------------|---------------------|---------------|-----------------|------------------------|-------------------------|---------------------------|----------------------------------|
| Autumn Stain | 7.26 | 0.0002 | 466.0 | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 |
| Burgundy Stain | 8.16 | 0.0049 | 466.0 | 0.00% | 8.00% | 4.00% | 0.00 | 6.56 | 3.28 |
| Carmel Stain | 7.48 | 0.001 | 466.0 | 0.00% | 0.00% | 1.00% | 0.00 | 0.00 | 0.19 |
| Chestnut Brushing Stain | 7.80 | 0.0002 | 466.0 | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 |
| Frost Stain | 7.79 | 0.001 | 466.0 | 0.00% | 8.00% | 1.00% | 0.00 | 1.15 | 0.14 |
| Hickory Stain | 8.28 | 0.002 | 466.0 | 0.00% | 3.00% | 0.00% | 0.00 | 1.25 | 0.00 |
| Oak Stain | 7.65 | 0.002 | 466.0 | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 |
| Sable Stain | 7.49 | 0.0005 | 466.0 | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 |
| Sorrell Stain | 8.34 | 0.002 | 466.0 | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 |
| Spice UV Stain | 8.26 | 0.001 | 466.0 | 5.00% | 0.00% | 0.00% | 0.83 | 0.00 | 0.00 |
| Spray 100% UV Coat | 9.28 | 0.008 | 466.0 | 0.00% | 0.00% | 0.00% | 0.00 | 0.00 | 0.00 |

| | | | |
|--------------------------------------|-------------|-------------|-------------|
| Total PTE of HAPs (tons/year) | 0.83 | 8.95 | 3.61 |
|--------------------------------------|-------------|-------------|-------------|

| | |
|---|--------------|
| PTE of Total Combined HAPs (tons/year) for this page | 13.39 |
|---|--------------|

METHODOLOGY

Uncontrolled HAP emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

**Appendix A: Emissions Calculations
Woodworking Operations WW1 through WW14 and WW17**

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Permit Number: T039-34286-00014
Reviewer: Brian Wright

| Operation | Baghouse | Air Flow (acfm) | Outlet Grain Loading (gr/ascf) | Control Efficiency (%) | Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr)* | Uncontrolled PM/PM10/PM2.5 Emissions (tons/yr)* | Controlled PM/PM10/PM2.5 Emissions (lb/hr)* | Controlled PM/PM10/PM2.5 Emissions (tons/yr)* | 326 IAC 6.5 Limit (gr/dscf) | Limited Particulate Emissions based on 326 IAC 6.5 (lb/hr) | PSD Minor PM/PM10/PM2.5 Limited Emissions (lbs/hr) | PSD Minor PM/PM10/PM2.5 Limited Emissions (tons/yr) | Equivalent Limited Efficiency (%) |
|--------------|----------|-----------------|--------------------------------|------------------------|---|---|---|---|-----------------------------|--|--|---|-----------------------------------|
| WW1 | CC1 | 72,000 | 0.001 | 99.9% | 617 | 2,703 | 0.62 | 2.70 | 0.03 | 18.51 | 1.36 | 5.96 | 99.78% |
| WW2 | CC2 | 72,000 | 0.001 | 99.9% | 617 | 2,703 | 0.62 | 2.70 | 0.03 | 18.51 | 1.36 | 5.96 | 99.78% |
| WW3 | CC3 | 23,000 | 0.001 | 99.9% | 197 | 863 | 0.20 | 0.86 | 0.03 | 5.91 | 0.44 | 1.93 | 99.78% |
| WW4 | CC4 | 46,700 | 0.001 | 99.9% | 400 | 1,753 | 0.40 | 1.75 | 0.03 | 12.01 | 0.88 | 3.85 | 99.78% |
| WW5 | CC5 | 46,700 | 0.001 | 99.9% | 400 | 1,753 | 0.40 | 1.75 | 0.03 | 12.01 | 0.88 | 3.85 | 99.78% |
| WW6 | CC6 | 46,700 | 0.001 | 99.9% | 400 | 1,753 | 0.40 | 1.75 | 0.03 | 12.01 | 0.88 | 3.85 | 99.78% |
| WW7 | CC7 | 23,000 | 0.001 | 99.9% | 197 | 863 | 0.20 | 0.86 | 0.03 | 5.91 | 0.44 | 1.93 | 99.78% |
| WW8 | CC8 | 19,400 | 0.001 | 99.9% | 166 | 728 | 0.17 | 0.73 | 0.03 | 4.99 | 0.37 | 1.62 | 99.78% |
| WW9 | SCC01 | 23,000 | 0.001 | 99.9% | 197 | 863 | 0.20 | 0.86 | 0.03 | 5.91 | 0.44 | 1.93 | 99.78% |
| WW10 | SCC02 | 34,300 | 0.001 | 99.9% | 294 | 1,288 | 0.29 | 1.29 | 0.03 | 8.82 | 0.65 | 2.85 | 99.78% |
| WW11 | SCC04 | 27,400 | 0.001 | 99.9% | 235 | 1,029 | 0.23 | 1.03 | 0.03 | 7.05 | 0.52 | 2.28 | 99.78% |
| WW12 | | | | | | | | | | | | | |
| WW13 | CC10 | 61,000 | 0.001 | 99.9% | 523 | 2,290 | 0.52 | 2.29 | 0.03 | 15.69 | 3.84 | 16.82 | 99.27% |
| WW14 | | | | | | | | | | | | | |
| WW17 | | | | | | | | | | | | | |
| Total | | | | | 4,245 | 18,591 | 4.24 | 18.59 | | 127.34 | 12.06 | 52.82 | |

Methodology

*PM10 and PM2.5 emissions assumed equal to PM emissions
Controlled Emissions (lbs/hr) = Air Flow (acfm) * Grain Loading (grains/ascf) * 60 (min/hr) / 7000 (grains/lb)
Controlled Emissions (ton/yr) = Controlled Emissions (lbs/hr) * (8760 hrs/yr) / 2000 (lbs/ton)
Uncontrolled Emissions (lbs/hr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency)
Uncontrolled Emissions (ton/yr) = Uncontrolled Emissions (lbs/hr) * (8760 hrs/yr) / 2000 (lbs/ton)
Limited Particulate Emissions based on 326 IAC 6.5 (lb/hr) = Air Flow (acfm) * Limit (grains/dscf) * 60 (min/hr) / 7000 (grains/lb)
Limited Particulate Emissions based on 326 IAC 6.5 (ton/yr) = Limited Particulate Emissions based on 326 IAC 6.5 (lb/hr) * (8760 hr/yr) / 2000 (lbs/ton)
Uncontrolled Emissions (lbs/hr) = Controlled Emissions (ton/yr) / (1 - Control Efficiency)
PSD Minor PM/PM10/PM2.5 Limited Emissions (tons/yr) = PSD Minor PM/PM10/PM2.5 Limited Emissions (lbs/hr) * (8760 hrs/yr) / 2000 (lbs/ton)
Equivalent Limited Efficiency (%) = 1 - [PSD Minor PM/PM10/PM2.5 Limited Emissions (lbs/hr) / Uncontrolled Emissions (lbs/hr)]

**Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Natural Gas
2-Stroke Lean-Burn (2SLB) Engines**

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Permit Number: T039-34286-00014
Reviewer: Brian Wright

| | | | |
|--|------|--------------|------------|
| Maximum Output Horsepower Rating (hp) | 43 | Unit | Horsepower |
| Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr) | 7500 | EG1 | 16 |
| Maximum Hours Operated per Year (hr/yr) | 500 | EG2 | 27 |
| Potential Fuel Usage (MMBtu/yr) | 161 | Total | 43 |
| High Heat Value (MMBtu/MMscf) | 1020 | | |
| Potential Fuel Usage (MMcf/yr) | 0.16 | | |

| Criteria Pollutants | Pollutant | | | | | | |
|-------------------------------|-----------|----------|----------|----------|----------|----------|----------|
| | PM* | PM10* | PM2.5* | SO2 | NOx | VOC | CO |
| Emission Factor (lb/MMBtu) | 3.84E-02 | 4.83E-02 | 4.83E-02 | 5.88E-04 | 3.17E+00 | 1.20E-01 | 3.86E-01 |
| Potential Emissions (tons/yr) | 0.00 | 0.00 | 0.00 | 0.000 | 0.26 | 0.01 | 0.03 |

*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM.
PM2.5 emission factor is filterable PM2.5 + condensable PM.

Hazardous Air Pollutants (HAPs)

| Pollutant | Emission Factor (lb/MMBtu) | Potential Emissions (tons/yr) |
|------------------------|----------------------------|-------------------------------|
| Acetaldehyde | 7.76E-03 | 0.001 |
| Acrolein | 7.78E-03 | 0.001 |
| Benzene | 1.94E-03 | 0.000 |
| 1,3-Butadiene | 8.20E-04 | 0.000 |
| Ethylbenzene | 1.08E-04 | 0.000 |
| Formaldehyde | 5.52E-02 | 0.004 |
| Methanol | 2.48E-03 | 0.000 |
| Methylene Chloride | 1.47E-04 | 0.000 |
| Hexane | 4.45E-04 | 0.000 |
| Toluene | 9.63E-04 | 0.000 |
| 2,2,4-Trimethylpentane | 8.46E-04 | 0.000 |
| Total PAH** | 1.34E-04 | 0.000 |
| Total | | 0.01 |

HAP pollutants consist of the twelve highest HAPs included in AP-42 Table 3.2-1.

**PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Methodology

Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-1

Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)]*[Brake Specific Fuel Consumption (Btu/hp-hr)]*[Maximum Hours Operated per Year (hr/yr)] / [1000000 Btu/MMBtu]

Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

| Greenhouse Gases (GHGs) | Greenhouse Gas (GHG) | | |
|---------------------------------------|----------------------|------|------|
| | CO2 | CH4 | N2O |
| Emission Factor in lb/MMBtu* | 110 | 1.25 | |
| Emission Factor in lb/MMcf** | | | 2.2 |
| Potential Emission in tons/yr | 8.87 | 0.10 | 0.00 |
| Summed Potential Emissions in tons/yr | 8.97 | | |
| CO2e Total in tons/yr | 11.44 | | |

Methodology

*The CO2 and CH4 emission factors are from Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-2

**The N2O emission factor is from AP 42, Table 1.4-2. The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

For CO2 and CH4: Emission (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]

For N2O: Emission (tons/yr) = [Potential Fuel Usage (MMCF/yr)] * [Emission Factor (lb/MMCF)] / [2,000 lb/ton]

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Abbreviations

| | | |
|------------------------------------|----------------------------------|---------------------------------|
| PM = Particulate Matter | NOx = Nitrous Oxides | CO2 = Carbon Dioxide |
| PM10 = Particulate Matter (<10 um) | VOC = Volatile Organic Compounds | CH4 = Methane |
| SO2 = Sulfur Dioxide | CO = Carbon Monoxide | N2O = Nitrous Oxide |
| | | CO2e = CO2 equivalent emissions |

**Appendix A: Emissions Calculations
Banding Process**

**Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Permit Number: T039-34286-00014
Reviewer: Brian Wright**

Adhesive Density = 9 lbs/gal

| | Max Throughput | Adhesive | Adhesive | VOC | Vinyl acetate | VOC | | Vinyl Acetate |
|--------------|----------------|------------|----------|--------|---------------|----------|------|---------------|
| | parts/hr | grams/part | gal/part | lb/gal | lb/gal | lbs/hour | tpy | tpy |
| 1 | 10 | 5.6 | 0.0014 | 0.0834 | 0.0834 | 0.001 | 0.01 | 0.01 |
| 2 | 10 | na | na | 0.0834 | 0.0834 | na | na | na |
| 3 | 240 | na | na | 0.0834 | 0.0834 | na | na | na |
| 4 | 200 | 17 | 0.0042 | 0.0834 | 0.0834 | 0.07 | 0.30 | 0.30 |
| 5 | 200 | 11.4 | 0.0028 | 0.0834 | 0.0834 | 0.05 | 0.20 | 0.20 |
| 6 | 250 | na | na | 0.0834 | 0.0834 | na | na | na |
| 7 | 150 | na | na | 0.0834 | 0.0834 | na | na | na |
| 8 | 200 | 5.6 | 0.0014 | 0.0834 | 0.0834 | 0.02 | 0.10 | 0.10 |
| Total | | | | | | 0.14 | 0.61 | 0.61 |

Methodology

Adhesive (gal/part) = Adhesive (grams/part) * (lb/453.6 grams) / Density (lbs/gal)

Adhesive density is a conservative estimate

VOC (lbs/hour) = Adhesive (gal/part) * parts/hour * VOC Density (lb/gal)

VOC (tpy) = VOC (lb/hour* * 8760 hours/year * ton/2000 lbs

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

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Permit Number: T039-34286-00014
Reviewer: Brian Wright

| | | |
|---------------------------------|-----------------------|---------------------------------|
| Heat Input Capacity MMBtu/hr | HHV mmBtu mmscf | Potential Throughput MMCF/yr |
| 0.5 | 1020 | 4.3 |

| Emission Factor in lb/MMCF | Pollutant | | | | | | |
|-------------------------------|-----------|-------|---------------|-------|-------------|------|------|
| | PM* | PM10* | direct PM2.5* | SO2 | NOx | VOC | CO |
| | 1.9 | 7.6 | 7.6 | 0.6 | 100 | 5.5 | 84 |
| Potential Emission in tons/yr | 0.004 | 0.02 | 0.02 | 0.001 | **see below | 0.01 | 0.18 |

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, ChBrian Wrighter 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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

| HAPs - Organics | | | | | | |
|-------------------------------|---------|-----------------|--------------|---------|---------|------------------|
| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene | Total - Organics |
| Emission Factor in lb/MMcf | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 | |
| Potential Emission in tons/yr | 4.5E-06 | 2.6E-06 | 1.6E-04 | 3.9E-03 | 7.3E-06 | 4.0E-03 |

| HAPs - Metals | | | | | | |
|-------------------------------|---------|---------|----------|-----------|---------|-------------------|
| | Lead | Cadmium | Chromium | Manganese | Nickel | Total - Metals |
| Emission Factor in lb/MMcf | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 | |
| Potential Emission in tons/yr | 1.1E-06 | 2.4E-06 | 3.0E-06 | 8.2E-07 | 4.5E-06 | 1.2E-05 |
| | | | | | | Total HAPs |
| | | | | | | Worst HAP |

Methodology is the same as above.

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

Greenhouse Gas Calculations

| Greenhouse Gas | | | |
|---------------------------------------|---------|-------|-------|
| | CO2 | CH4 | N2O |
| Emission Factor in lb/MMcf | 120,000 | 2.3 | 2.2 |
| Potential Emission in tons/yr | 258 | 0.005 | 0.005 |
| Summed Potential Emissions in tons/yr | 258 | | |
| CO2e Total in tons/yr | 259 | | |

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Appendix A: Emissions Calculations

**VOC
UV Glaze**

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Permit Number: T039-34286-00014
Reviewer: Brian Wright

| Coating | Density (Lb/Gal) | Weight % VOC | % Toluene | % Formaldehyde | gallons per hour | Potential VOC tons per year | Toluene (tons/yr) | Formaldehyde (tons/yr) | Total HAP (tons/yr) |
|---------------|------------------|--------------|-----------|----------------|------------------|-----------------------------|-------------------|------------------------|---------------------|
| Butyl Acetate | 6.8 | 74.3% | 16% | 0.02% | 0.08 | 1.67 | 0.35 | 0.00 | 0.35 |

Methodology

VOC Emissions (tons/yr) = [Gallons per unit] * [Units per Hour] * [Density (lbs/gallon)] * [Weight % VOC] / [2000 lbs/ton] * [8760 hours/yr]

Individual HAP Emissions (tons/yr) = [Gallons per unit] * [Units per Hour] * [Density (lbs/gallon)] * [Weight %HAP] / [2000 lbs/ton] * [8760 hours/yr]

Total HAP = Sum of all individual HAPs

Adhesive (gal/part) = Adhesive (grams/part) * (lb/453.6 grams) / Density (lbs/gal)

Adhesive density is a conservative estimate

VOC (lbs/hour) = Adhesive (gal/part) * parts/hour * VOC Density (lb/gal)

VOC (tpy) = VOC (lb/hour) * 8760 hours/year * ton/2000 lbs

**Appendix A: Emissions Calculations
Surface Coating
Spray Stations PN1, PN2, and PN3**

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Significant Source Mod No.: 039-34897-00014
Significant Permit Mod No.: 039-34964-00014
Reviewer: Brian Wright

Uncontrolled Potential Emissions

| Material* | Density (Lb/Gal) | Weight % Volatile (H2O & Organics) | Weight % Water | Weight % Organics | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Pounds VOC per gallon of coating less water | Pounds VOC per gallon of coating | Potential VOC pounds per hour | Potential VOC pounds per day | Potential VOC tons per year | lb VOC/gal solids | Transfer Efficiency | Uncontrolled PM/PM10/PM2.5 Potential (lb/hr) | Uncontrolled PM/PM10/PM2.5 Potential (tons/year) |
|-----------------------------------|------------------|------------------------------------|----------------|-------------------|----------------|---------------------------------|------------------------|---------------------|---|----------------------------------|-------------------------------|------------------------------|-----------------------------|-------------------|---------------------|--|--|
| PN1 | | | | | | | | | | | | | | | | | |
| Willow | 8.523 | 67.81% | 0.00% | 67.81% | 0.00% | 32.20% | 0.10 | 360 | 5.78 | 5.78 | 207.81 | 4987.45 | 910.21 | 17.95 | 35% | 64.13 | 280.90 |
| Sorrell | 7.033 | 96.24% | 41.03% | 55.21% | 41.74% | 2.23% | 0.10 | 360 | 6.66 | 3.88 | 139.62 | 3350.82 | 611.52 | 174.28 | 35% | 6.17 | 27.04 |
| Bison | 7.071 | 96.78% | 48.82% | 47.96% | 50.13% | 1.66% | 0.10 | 360 | 6.80 | 3.39 | 121.94 | 2926.53 | 534.09 | 204.29 | 35% | 5.32 | 23.31 |
| Buckboard | 7.095 | 96.15% | 49.34% | 46.81% | 50.92% | 2.17% | 0.10 | 360 | 6.77 | 3.32 | 119.43 | 2866.23 | 523.09 | 152.85 | 35% | 6.39 | 27.98 |
| Burgundy | 7.083 | 96.30% | 49.76% | 46.54% | 51.11% | 1.84% | 0.10 | 360 | 6.74 | 3.30 | 118.52 | 2844.39 | 519.10 | 178.84 | 35% | 6.13 | 26.86 |
| French Vanilla | 8.604 | 65.49% | 39.08% | 26.41% | 50.94% | 34.51% | 0.10 | 360 | 4.63 | 2.27 | 81.69 | 1960.63 | 357.81 | 6.58 | 35% | 69.40 | 303.98 |
| White | 8.602 | 65.51% | 39.14% | 26.37% | 51.00% | 15.58% | 0.10 | 360 | 4.63 | 2.27 | 81.56 | 1957.50 | 357.24 | 14.56 | 35% | 69.34 | 303.72 |
| Autumn | 7.506 | 98.78% | 77.39% | 21.39% | 77.39% | 0.88% | 0.10 | 360 | 7.10 | 1.61 | 57.73 | 1385.52 | 252.86 | 183.28 | 35% | 2.14 | 9.39 |
| Chestnut | 8.503 | 88.24% | 80.36% | 7.88% | 81.74% | 9.70% | 0.10 | 360 | 3.67 | 0.67 | 24.08 | 577.92 | 105.47 | 6.91 | 35% | 23.38 | 102.39 |
| Sprout | 8.330 | 65.03% | 36.82% | 28.22% | 0.00% | 19.25% | 0.10 | 360 | 2.35 | 2.35 | 84.51 | 2028.23 | 370.15 | 12.21 | 35% | 68.07 | 298.17 |
| Worst Case Emissions | | | | | | | | | | | 207.81 | 4987.45 | 910.21 | | | 69.40 | 303.98 |
| PN2 | | | | | | | | | | | | | | | | | |
| Willow | 8.523 | 67.81% | 0.00% | 67.81% | 0.00% | 32.20% | 0.10 | 360 | 5.78 | 5.78 | 207.81 | 4987.45 | 910.21 | 17.95 | 35% | 64.13 | 280.90 |
| Catalyst - Clear | 7.54 | 69.35% | 0.00% | 69.35% | 0.00% | 20.12% | 0.10 | 360 | 5.23 | 5.23 | 188.02 | 4512.56 | 823.54 | 25.99 | 35% | 54.01 | 236.56 |
| Sprout | 8.330 | 65.03% | 36.82% | 28.22% | 0.00% | 19.25% | 0.10 | 360 | 2.35 | 2.35 | 84.51 | 2028.23 | 370.15 | 12.21 | 35% | 68.07 | 298.17 |
| French Vanilla | 8.604 | 65.49% | 39.08% | 26.41% | 50.94% | 34.51% | 0.10 | 360 | 4.63 | 2.27 | 81.69 | 1960.63 | 357.81 | 6.58 | 35% | 69.40 | 303.98 |
| White | 8.602 | 65.51% | 39.14% | 26.37% | 51.00% | 15.58% | 0.10 | 360 | 4.63 | 2.27 | 81.56 | 1957.50 | 357.24 | 14.56 | 35% | 69.34 | 303.72 |
| Varnish/Sealer/Topcoat | 7.967 | 65.01% | 36.84% | 28.17% | 0.08% | 27.43% | 0.10 | 360 | 2.25 | 2.24 | 80.70 | 1936.75 | 353.46 | 8.18 | 35% | 65.16 | 285.39 |
| Worst Case Emissions | | | | | | | | | | | 207.81 | 4987.45 | 910.21 | | | 69.40 | 303.98 |
| PN3 | | | | | | | | | | | | | | | | | |
| Catalyst - Clear | 7.54 | 69.35% | 0.00% | 69.35% | 0.00% | 20.12% | 0.10 | 360 | 5.23 | 5.23 | 188.02 | 4512.56 | 823.54 | 25.99 | 35% | 54.01 | 236.56 |
| Varnish/Sealer/Topcoat | 7.97 | 65.01% | 36.84% | 28.17% | 0.08% | 27.43% | 0.10 | 360 | 2.25 | 2.24 | 80.70 | 1936.75 | 353.46 | 8.18 | 35% | 65.16 | 285.39 |
| Worst Case Mixture* | 7.96 | 65.09% | 36.10% | 28.99% | 0.08% | 27.28% | 0.10 | 360 | 2.31 | 2.30 | 82.84 | 1988.27 | 362.86 | 8.46 | 35% | 64.93 | 284.39 |
| Worst Case Emissions | | | | | | | | | | | 82.84 | 1988.27 | 362.86 | | | 64.93 | 284.39 |
| Total Worst Case Emissions | | | | | | | | | | | 498.47 | 11963.17 | 2183.28 | | | 203.73 | 892.36 |

Controlled and Limited Potential to Emit

| Emission Unit | Uncontrolled PTE of VOC (tons/yr) | RTO-1 VOC Control Efficiency | Controlled PTE of VOC (tons/yr) | Uncontrolled PTE of PM/PM10/PM2.5 (lbs/hr) | Dry Filter Particulate Control Efficiency | Dry Filter Controlled PTE of PM/PM10/PM2.5 (lbs/hr) | RTO-1 Particulate Control Efficiency | RTO and Dry Filter Controlled PTE of PM/PM10/PM2.5 (lbs/hr) | RTO and Dry Filter Controlled PTE of PM/PM10/PM2.5 (tons/yr) | PSD Minor Limit for PM (lbs/hr) | PSD Minor Limit for PM10 (lbs/hr) | PSD Minor Limit for PM2.5 (lbs/hr) | Limited PTE of PM (tons/yr) | Limited PTE of PM10 (tons/yr) | Limited PTE of PM2.5 (tons/yr) |
|---------------|-----------------------------------|------------------------------|---------------------------------|--|---|---|--------------------------------------|---|--|---------------------------------|-----------------------------------|------------------------------------|-----------------------------|-------------------------------|--------------------------------|
| PN1 | 910.21 | 99% | 9.10 | 69.40 | 94% | 4.16 | 99% | 0.04 | 0.18 | 1.39 | 0.82 | 0.54 | 6.09 | 3.59 | 2.37 |
| PN2 | 910.21 | 99% | 9.10 | 69.40 | 94% | 4.16 | 99% | 0.04 | 0.18 | 1.39 | 0.82 | 0.54 | 6.09 | 3.59 | 2.37 |
| PN3 | 362.86 | 99% | 3.63 | 64.93 | 94% | 3.90 | 99% | 0.04 | 0.17 | 1.39 | 0.82 | 0.54 | 6.09 | 3.59 | 2.37 |
| Totals | 2183.28 | | 21.83 | 203.73 | | 12.22 | | 0.12 | 0.54 | 4.17 | 2.46 | 1.62 | 18.26 | 10.77 | 7.10 |

METHODOLOGY

Each spray station is only capable of using one coating at a time. Potential emissions are based on worst case coating for each pollutant.
 *Worst case coating for PN3 is a mixture of Catalyst (2%) and the Varnish/Sealer/Topcoat (98%)
 Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
 Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
 Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
 Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
 Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1-Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
 Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
 Controlled Emissions Tons per Year = (worst case potential (tons/yr) * (1-control efficiency))

**Appendix A: Emissions Calculations
Surface Coating HAPs**

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Significant Source Mod No.: 039-34897-00014
Significant Permit Mod No.: 039-34964-00014
Reviewer: Brian Wright

| Material* | Density (Lb/Gal) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | % Toluene | % 4-Methylpentan-2-One | % Xylene | % Formaldehyde | % Ethyl Benzene | % Methanol | % Cumene | Toluene Emissions tons/yr | 4-Methylpentan-2-One Emissions tons/yr | Xylene Emissions tons/yr | Formaldehyde Emissions tons/yr | Ethyl Benzene Emissions tons/yr | Methanol Emissions tons/yr | Cumene Emissions tons/yr | Total HAPs Emissions tons/yr |
|-----------------------------|------------------|------------------------|---------------------|-----------|------------------------|----------|----------------|-----------------|------------|----------|---------------------------|--|--------------------------|--------------------------------|---------------------------------|----------------------------|--------------------------|------------------------------|
| PN1 | | | | | | | | | | | | | | | | | | |
| Willow | 8.523 | 0.10 | 360 | 8.91% | 0.60% | 0.50% | 0.12% | 0.12% | 0.00% | 0.00% | 119.60 | 8.05 | 6.71 | 1.58 | 1.58 | 0.00 | 0.00 | 137.53 |
| Sorrell | 7.033 | 0.10 | 360 | 0.05% | 0.31% | 8.23% | 0.00% | 1.93% | 0.00% | 0.00% | 0.13 | 3.36 | 21.21 | 0.40 | 4.97 | 0.00 | 0.00 | 30.07 |
| Bison | 7.071 | 0.10 | 360 | 0.06% | 0.18% | 10.19% | 0.00% | 2.39% | 0.00% | 0.00% | 0.13 | 3.39 | 21.36 | 0.40 | 5.01 | 0.00 | 0.00 | 30.29 |
| Buckboard | 7.095 | 0.10 | 360 | 0.06% | 1.01% | 10.18% | 0.00% | 2.39% | 0.00% | 0.00% | 0.70 | 11.26 | 113.75 | 0.00 | 26.67 | 0.00 | 0.00 | 152.39 |
| Burgundy | 7.083 | 0.10 | 360 | 0.06% | 0.00% | 10.36% | 0.00% | 2.43% | 0.00% | 0.00% | 0.71 | 0.00 | 115.56 | 0.00 | 27.10 | 0.00 | 0.00 | 143.36 |
| French Vanilla | 8.604 | 0.10 | 360 | 0.01% | 0.30% | 1.92% | 0.04% | 0.45% | 0.00% | 0.00% | 0.16 | 4.11 | 25.95 | 0.49 | 6.08 | 0.00 | 0.00 | 36.79 |
| White | 8.602 | 0.10 | 360 | 0.01% | 0.30% | 1.92% | 0.04% | 0.45% | 0.00% | 0.00% | 0.16 | 4.12 | 25.98 | 0.49 | 6.10 | 0.00 | 0.00 | 36.85 |
| Autumn | 7.506 | 0.10 | 360 | 0.00% | 0.00% | 0.15% | 0.00% | 0.00% | 0.56% | 0.08% | 0.00 | 0.00 | 1.77 | 0.00 | 0.00 | 6.63 | 0.89 | 9.29 |
| Chestnut | 8.503 | 0.10 | 360 | 0.00% | 0.07% | 0.00% | 0.05% | 0.00% | 0.00% | 0.00% | 0.00 | 0.98 | 0.00 | 0.64 | 0.00 | 0.00 | 0.00 | 1.62 |
| PN2 | | | | | | | | | | | | | | | | | | |
| Willow | 8.523 | 0.10 | 360 | 8.91% | 0.60% | 0.50% | 0.12% | 0.12% | 0.00% | 0.00% | 119.60 | 8.05 | 6.71 | 1.58 | 1.58 | 0.00 | 0.00 | 137.53 |
| Catalyst - Clear | 7.54 | 0.10 | 360 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 8.80% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 104.55 | 0.00 | 104.55 |
| Sprout | 8.330 | 0.10 | 360 | 0.02% | 0.29% | 2.75% | 0.05% | 0.65% | 0.00% | 0.00% | 0.22 | 3.75 | 36.08 | 0.68 | 8.46 | 0.00 | 0.00 | 49.20 |
| French Vanilla | 8.604 | 0.10 | 360 | 0.01% | 0.30% | 1.92% | 0.04% | 0.45% | 0.00% | 0.00% | 0.16 | 4.11 | 25.95 | 0.49 | 6.08 | 0.00 | 0.00 | 36.79 |
| White | 8.602 | 0.10 | 360 | 0.01% | 0.30% | 1.92% | 0.04% | 0.45% | 0.00% | 0.00% | 0.16 | 4.12 | 25.98 | 0.49 | 6.10 | 0.00 | 0.00 | 36.85 |
| Varnish/Sealer/Topcoat | 7.967 | 0.10 | 360 | 0.00% | 0.07% | 0.00% | 0.05% | 0.00% | 0.00% | 0.00% | 0.00 | 0.92 | 0.00 | 0.60 | 0.00 | 0.00 | 0.00 | 1.52 |
| PN3 | | | | | | | | | | | | | | | | | | |
| Catalyst - Clear | 7.54 | 0.10 | 360 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 8.80% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 104.55 | 0.00 | 104.55 |
| Varnish/Sealer/Topcoat | 7.967 | 0.10 | 360 | 0.00% | 0.07% | 0.00% | 0.05% | 0.00% | 0.00% | 0.00% | 0.00 | 0.92 | 0.00 | 0.60 | 0.00 | 0.00 | 0.00 | 1.52 |
| Worst Case Mixture* | 7.96 | 0.10 | 360 | 0.00% | 0.07% | 0.00% | 0.05% | 0.00% | 0.18% | 0.00% | 0.00 | 0.90 | 0.00 | 0.59 | 0.00 | 2.21 | 0.00 | 3.69 |
| Worst Case Emissions | | | | | | | | | | | 239.20 | 20.21 | 151.63 | 3.76 | 35.56 | 113.38 | 0.89 | 293.62 |

METHODOLOGY

Each spray station is only capable of using one coating at a time. Potential emissions are based on worst case coating for each pollutant.

*Worst case coating for PN3 is a mixture of Catalyst (2%) and the Varnish/Sealer/Topcoat (98%)

Uncontrolled HAP emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Surface Coating
Spray Booth PB1-12

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Significant Source Mod No.: 039-34897-00014
Significant Permit Mod No.: 039-34964-00014
Reviewer: Brian Wright

Uncontrolled Potential Emissions

| Material* | Density (Lb/Gal) | Weight % Volatile (H2O & Organics) | Weight % Water | Weight % Organics | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Pounds VOC per gallon of coating less | Pounds VOC per gallon of coating | Potential VOC pounds per hour | Potential VOC pounds per day | Potential VOC tons per year | lb VOC/gal solids | Transfer Efficiency | Uncontrolled PM/PM10/PM2.5 Potential (lb/hr) | Uncontrolled PM/PM10/PM2.5 Potential (tons/year) |
|-----------------------------|------------------|------------------------------------|----------------|-------------------|----------------|---------------------------------|------------------------|---------------------|---------------------------------------|----------------------------------|-------------------------------|------------------------------|-----------------------------|-------------------|---------------------|--|--|
| Willow | 8.523 | 67.81% | 0.00% | 67.81% | 0.00% | 32.20% | 0.10 | 140 | 5.78 | 5.78 | 80.82 | 1939.56 | 353.97 | 17.95 | 35% | 24.94 | 109.24 |
| Catalyst - Clear | 7.54 | 69.35% | 0.00% | 69.35% | 0.00% | 20.12% | 0.10 | 140 | 5.23 | 5.23 | 73.12 | 1754.88 | 320.27 | 25.99 | 35% | 21.00 | 92.00 |
| Sorrell | 7.033 | 96.24% | 41.03% | 55.21% | 41.74% | 2.23% | 0.10 | 140 | 6.66 | 3.88 | 54.30 | 1303.10 | 237.81 | 174.28 | 35% | 2.40 | 10.52 |
| Bison | 7.071 | 96.78% | 48.82% | 47.96% | 50.13% | 1.66% | 0.10 | 140 | 6.80 | 3.39 | 47.42 | 1138.09 | 207.70 | 204.29 | 35% | 2.07 | 9.06 |
| Buckboard | 7.095 | 96.15% | 49.34% | 46.81% | 50.92% | 2.17% | 0.10 | 140 | 6.77 | 3.32 | 46.44 | 1114.65 | 203.42 | 152.85 | 35% | 2.48 | 10.88 |
| Burgundy | 7.083 | 96.30% | 49.76% | 46.54% | 51.11% | 1.84% | 0.10 | 140 | 6.74 | 3.30 | 46.09 | 1106.15 | 201.87 | 178.84 | 35% | 2.39 | 10.45 |
| Sprout | 8.330 | 65.03% | 36.82% | 28.22% | 0.00% | 19.25% | 0.10 | 140 | 2.35 | 2.35 | 32.86 | 788.76 | 143.95 | 12.21 | 35% | 26.47 | 115.95 |
| French Vanilla | 8.604 | 65.49% | 39.08% | 26.41% | 50.94% | 34.51% | 0.10 | 140 | 4.63 | 2.27 | 31.77 | 762.47 | 139.15 | 6.58 | 35% | 26.99 | 118.22 |
| White | 8.602 | 65.51% | 39.14% | 26.37% | 51.00% | 15.58% | 0.10 | 140 | 4.63 | 2.27 | 31.72 | 761.25 | 138.93 | 14.56 | 35% | 26.97 | 118.11 |
| Varnish/Sealer/Topcoat | 7.967 | 65.01% | 36.84% | 28.17% | 0.08% | 27.43% | 0.10 | 140 | 2.25 | 2.24 | 31.38 | 753.18 | 137.46 | 8.18 | 35% | 25.34 | 110.98 |
| Autumn | 7.506 | 98.78% | 77.39% | 21.39% | 77.39% | 0.88% | 0.10 | 140 | 7.10 | 1.61 | 22.45 | 538.81 | 98.33 | 183.28 | 35% | 0.83 | 3.65 |
| Chestnut | 8.503 | 88.24% | 80.36% | 7.88% | 81.74% | 9.70% | 0.10 | 140 | 3.67 | 0.67 | 9.36 | 224.75 | 41.02 | 6.91 | 35% | 9.09 | 39.82 |
| Worst Case Emissions | | | | | | | | | | | 80.82 | 1939.56 | 353.97 | | | 26.99 | 118.22 |

Controlled and Limited Potential to Emit

| Emission Unit | Uncontrolled PTE of VOC (tons/yr) | RTO-1 VOC Control Efficiency | Controlled PTE of VOC (tons/yr) | Uncontrolled PTE of PM/PM10/PM2.5 (lbs/hr) | Dry Filter Particulate Control Efficiency | Dry Filter Controlled PTE of PM/PM10/P M2.5 (lbs/hr) | RTO-1 Particulate Control Efficiency | RTO and Dry Filter Controlled PTE of PM/PM10/ PM2.5 (lbs/hr) | RTO and Dry Filter Controlled PTE of PM/PM10/P M2.5 (tons/yr) | PSD Minor Limit for PM (lbs/hr) | PSD Minor Limit for PM10 (lbs/hr) | PSD Minor Limit for PM2.5 (lbs/hr) | Limited PTE of PM (tons/yr) | Limited PTE of PM10 (tons/yr) | Limited PTE of PM2.5 (tons/yr) |
|---------------|-----------------------------------|------------------------------|---------------------------------|--|---|--|--------------------------------------|--|---|---------------------------------|-----------------------------------|------------------------------------|-----------------------------|-------------------------------|--------------------------------|
| PB1-12 | 353.97 | 99% | 3.54 | 26.99 | 94% | 1.62 | 99% | 0.02 | 0.07 | 1.39 | 0.82 | 0.54 | 6.09 | 3.59 | 2.37 |

METHODOLOGY

The unit is only capable of using one coating at a time. Potential emissions are based on worst case coating for each pollutant.
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Controlled Emissions Tons per Year = (worst case potential (tons/yr) * (1-control efficiency))

**Appendix A: Emissions Calculations
Surface Coating HAPs**

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Significant Source Mod No.: 039-34897-00014
Significant Permit Mod No.: 039-34964-00014
Reviewer: Brian Wright

| Material* | Density (Lb/Gal) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | % Toluene | % 4-Methylpentan-2-One | % Xylene | % Formaldehyde | % Ethyl Benzene | % Methanol | % Cumene | Toluene Emissions tons/yr | 4-Methylpentan-2-One Emissions tons/yr | Xylene Emissions tons/yr | Formaldehyde Emissions tons/yr | Ethyl Benzene Emissions tons/yr | Methanol Emissions tons/yr | Cumene Emissions tons/yr | Total HAPs Emissions tons/yr |
|---------------------------|------------------|------------------------|---------------------|-----------|------------------------|----------|----------------|-----------------|------------|----------|---------------------------|--|--------------------------|--------------------------------|---------------------------------|----------------------------|--------------------------|------------------------------|
| Willow | 8.523 | 0.10 | 140 | 8.91% | 0.60% | 0.50% | 0.12% | 0.12% | 0.00% | 0.00% | 46.51 | 3.13 | 2.61 | 0.62 | 0.62 | 0.00 | 0.00 | 53.48 |
| Catalyst - Clear | 7.54 | 0.10 | 140 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 8.80% | 0.00% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 40.66 | 0.00 | 40.66 |
| Sorrell | 7.033 | 0.10 | 140 | 0.05% | 0.31% | 8.23% | 0.00% | 1.93% | 0.00% | 0.00% | 0.07 | 1.23 | 11.85 | 0.22 | 2.78 | 0.00 | 0.00 | 16.15 |
| Bison | 7.071 | 0.10 | 140 | 0.06% | 0.18% | 10.19% | 0.00% | 2.39% | 0.00% | 0.00% | 0.05 | 1.31 | 8.29 | 0.16 | 1.94 | 0.00 | 0.00 | 11.76 |
| Buckboard | 7.095 | 0.10 | 140 | 0.06% | 1.01% | 10.18% | 0.00% | 2.39% | 0.00% | 0.00% | 0.27 | 4.38 | 44.24 | 0.00 | 10.37 | 0.00 | 0.00 | 59.26 |
| Burgundy | 7.083 | 0.10 | 140 | 0.06% | 0.00% | 10.36% | 0.00% | 2.43% | 0.00% | 0.00% | 0.28 | 0.00 | 44.94 | 0.00 | 10.54 | 0.00 | 0.00 | 55.75 |
| Sprout | 8.330 | 0.10 | 140 | 0.02% | 0.29% | 2.75% | 0.05% | 0.65% | 0.00% | 0.00% | 0.09 | 1.46 | 14.03 | 0.27 | 3.29 | 0.00 | 0.00 | 19.13 |
| French Vanilla | 8.604 | 0.10 | 140 | 0.01% | 0.30% | 1.92% | 0.04% | 0.45% | 0.00% | 0.00% | 0.06 | 1.60 | 10.09 | 0.19 | 2.37 | 0.00 | 0.00 | 14.31 |
| White | 8.602 | 0.10 | 140 | 0.01% | 0.30% | 1.92% | 0.04% | 0.45% | 0.00% | 0.00% | 0.06 | 1.60 | 10.10 | 0.19 | 2.37 | 0.00 | 0.00 | 14.33 |
| Varnish/Sealer/Topcoat | 7.967 | 0.10 | 140 | 0.00% | 0.07% | 0.00% | 0.05% | 0.00% | 0.00% | 0.00% | 0.00 | 0.36 | 0.00 | 0.23 | 0.00 | 0.00 | 0.00 | 0.59 |
| Autumn | 7.506 | 0.10 | 140 | 0.00% | 0.00% | 0.15% | 0.00% | 0.00% | 0.56% | 0.08% | 0.00 | 0.00 | 0.69 | 0.00 | 0.00 | 2.58 | 0.34 | 3.61 |
| Chestnut | 8.503 | 0.10 | 140 | 0.00% | 0.07% | 0.00% | 0.05% | 0.00% | 0.00% | 0.00% | 0.00 | 0.38 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.63 |
| Worst Case Coating | | | | | | | | | | | 46.51 | 4.38 | 44.94 | 0.62 | 10.54 | 40.66 | 0.34 | 59.26 |

METHODOLOGY

This unit is only capable of using one coating at a time. Potential emissions are based on worst case coating for each pollutant.
 Uncontrolled HAP emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

**Appendix A: Emissions Calculations
Natural Gas Combustion Only**

MM BTU/HR <100
Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Significant Source Mod No.: 039-34897-00014
Significant Permit Mod No.: 039-34964-00014
Reviewer: Brian Wright

| | | | | |
|---------------------------------|-----------------------|---------------------------------|--------------|----------------------------|
| Heat Input Capacity MMBtu/hr | HHV mmBtu mmscf | Potential Throughput MMCF/yr | Unit | Heat Input MMBtu/hr |
| | | | EX BO 1 | 0.5 |
| | | | RTO-1 | 4.04 |
| 4.5 | 1020 | 39.0 | Total | 4.54 |

| Emission Factor in lb/MMCF | Pollutant | | | | | | |
|-------------------------------|-----------|-------|---------------|------|-------------|------|------|
| | PM* | PM10* | direct PM2.5* | SO2 | NOx | VOC | CO |
| | 1.9 | 7.6 | 7.6 | 0.6 | 100 | 5.5 | 84 |
| Potential Emission in tons/yr | 0.04 | 0.15 | 0.15 | 0.01 | **see below | 0.11 | 1.64 |

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
 PM2.5 emission factor is filterable and condensable PM2.5 combined.
 **Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
 MMBtu = 1,000,000 Btu
 MMCF = 1,000,000 Cubic Feet of Gas
 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
 Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

| Emission Factor in lb/MMcf | HAPs - Organics | | | | | Total - Organics |
|-------------------------------|-----------------|-----------------|--------------|----------|----------|------------------|
| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene | |
| | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 | |
| Potential Emission in tons/yr | 4.09E-05 | 2.34E-05 | 1.46E-03 | 3.51E-02 | 6.63E-05 | 3.67E-02 |

| Emission Factor in lb/MMcf | HAPs - Metals | | | | | Total - Metals |
|-------------------------------|---------------|----------|----------|-----------|----------|-----------------|
| | Lead | Cadmium | Chromium | Manganese | Nickel | |
| | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 | |
| Potential Emission in tons/yr | 9.75E-06 | 2.14E-05 | 2.73E-05 | 7.41E-06 | 4.09E-05 | 1.07E-04 |

| | |
|-------------------|-----------------|
| Total HAPs | 3.68E-02 |
| Worst HAP | 3.51E-02 |

Methodology is the same as above.

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

Greenhouse Gas Calculations

| Emission Factor in lb/MMcf | Greenhouse Gas | | |
|---------------------------------------|----------------|------|------|
| | CO2 | CH4 | N2O |
| | 120,000 | 2.3 | 2.2 |
| Potential Emission in tons/yr | 2,339 | 0.04 | 0.04 |
| Summed Potential Emissions in tons/yr | 2,340 | | |
| CO2e Total in tons/yr | 2,353 | | |

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
 Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
 Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
 CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

Appendix A: Emissions Calculations

**VOC
UV Glaze**

Company Name: MasterBrand Cabinets, Inc.
Source Address: 1002 Eisenhower Drive North, Goshen, IN 46526
Permit Number: T039-34286-00014
Reviewer: Brian Wright

| Coating | Density (Lb/Gal) | Weight % VOC | % Toluene | % Formaldehyde | Methanol % | gallons per hour | Potential VOC tons per year | Toluene (tons/yr) | Formaldehyde (tons/yr) | Methanol (tons/yr) | Total HAP (tons/yr) |
|-----------------------------|------------------|--------------|-----------|----------------|------------|------------------|-----------------------------|-------------------|------------------------|--------------------|---------------------|
| Catalyst - Glaze | 9.06 | 35.60% | 0.00% | 0.00% | 18.50% | 0.08 | 1.06 | 0.00 | 0.00 | 0.60 | 0.60 |
| Mist | 7.61 | 74.29% | 15.75% | 0.02% | 0.00% | 0.08 | 1.86 | 0.39 | 0.00 | 0.00 | 0.39 |
| Fawn | 7.52 | 74.55% | 16.69% | 0.02% | 0.00% | 0.08 | 1.84 | 0.41 | 0.00 | 0.00 | 0.41 |
| Barnwood | 7.44 | 74.72% | 17.74% | 0.03% | 0.00% | 0.08 | 1.83 | 0.43 | 0.00 | 0.00 | 0.43 |
| Smoke | 7.415 | 74.76% | 18.10% | 0.02% | 0.00% | 0.08 | 1.82 | 0.44 | 0.00 | 0.00 | 0.44 |
| Linen | 7.42 | 74.77% | 18.10% | 0.02% | 0.00% | 0.08 | 1.82 | 0.44 | 0.00 | 0.00 | 0.44 |
| Mocha | 7.38 | 74.99% | 18.35% | 0.02% | 0.00% | 0.08 | 1.82 | 0.44 | 0.00 | 0.00 | 0.45 |
| Cocoa | 7.375 | 75.32% | 18.15% | 0.02% | 0.00% | 0.08 | 1.82 | 0.44 | 0.00 | 0.00 | 0.44 |
| Ebony | 7.351 | 75.25% | 18.43% | 0.02% | 0.00% | 0.08 | 1.82 | 0.44 | 0.00 | 0.00 | 0.45 |
| Worst Case Emissions | | | | | | | 1.86 | 0.44 | 0.00 | 0.60 | 0.60 |

Methodology

VOC Emissions (tons/yr) = [Gallons per unit] * [Units per Hour] * [Density (lbs/gallon)] * [Weight % VOC] / [2000 lbs/ton] * [8760 hours/yr]

Individual HAP Emissions (tons/yr) = [Gallons per unit] * [Units per Hour] * [Density (lbs/gallon)] * [Weight %HAP] / [2000 lbs/ton] * [8760 hours/yr]

Total HAP = Sum of all individual HAPs



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: John Horwarth
MasterBrand Cabinets
PO Box 595
Goshen, IN 46527

DATE: February 25, 2015

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

SUBJECT: Final Decision
Title V - Significant Permit Modification
039 - 34964 - 00014

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Bart Boeglin, GM
Erin Surinak Environmental Resources Management (ERM)
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 6/13/2013



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Governor

Thomas W. Easterly
Commissioner

February 25, 2015

TO: Goshen Public Library 601 S 5th St Goshen IN

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: MasterBrand Cabinets
Permit Number: 039 - 34964 - 00014

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 6/13/2013

Mail Code 61-53

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|----------------------------|---|---|--|
| IDEM Staff | LPOGOST 2/25/2015 MasterBrand Cabinets, Inc 039 - 34964 - 00014 final) | | AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING |
| Name and address of Sender |  | Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204 | |

TYPE OF MAIL:
CERTIFICATE OF MAILING ONLY

| Line | Article Number | Name, Address, Street and Post Office Address | Postage | Handling Charges | Act. Value (If Registered) | Insured Value | Due Send if COD | R.R. Fee | S.D. Fee | S.H. Fee | Rest. Del. Fee |
|------|----------------|--|---------|------------------|----------------------------|---------------|-----------------|----------|----------|----------|----------------|
| | | | | | | | | | | | Remarks |
| 1 | | John Horwarth MasterBrand Cabinets, Inc PO Box 595 Goshen IN 46527 (Source CAATS) Via USPS certified mail | | | | | | | | | |
| 2 | | Bart Boeglin GM MasterBrand Cabinets, Inc PO Box 595 Goshen IN 46527 (RO CAATS) | | | | | | | | | |
| 3 | | Elkhart City Council and Mayors Office 229 South Second Street Elkhart IN 46516 (Local Official) | | | | | | | | | |
| 4 | | Elkhart County Health Department 608 Oakland Avenue Elkhart IN 46516 (Health Department) | | | | | | | | | |
| 5 | | Goshen City Council and Mayors Office 202 South 5th Street Suite 1 Goshen IN 46528 (Local Official) | | | | | | | | | |
| 6 | | Goshen Public Library 601 S 5th St Goshen IN 46526-3994 (Library) | | | | | | | | | |
| 7 | | Elkhart County Board of Commissioners 117 North Second St. Goshen IN 46526 (Local Official) | | | | | | | | | |
| 8 | | Erin Surinak Environmental Resources Management (ERM) 11350 N Meridian Street Suite 320 Carmel IN 46032 (Consultant) | | | | | | | | | |
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