



# 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](http://www.idem.IN.gov)

**Michael R. Pence**  
Governor

**Thomas W. Easterly**  
Commissioner

To: Interested Parties

Date: June 10, 2014

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

Source Name: Bremtown Fine Custom Cabinetry, Inc.

Permit Level: Minor Source Operating Permit (MSOP)

Permit Number: 099-34075-00047

Source Location: 712 North Bowen and 1456 State Road 331 N., Bremen, Indiana

Type of Action Taken: Permit Renewal  
Revisions to permit requirements

## **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 34075.

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

*(continues on next page)*

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 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 of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.



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## Minor Source Operating Permit OFFICE OF AIR QUALITY

**Bremtown Fine Custom Cabinetry, Inc.  
712 North Bowen and 1456 State Road 331 N.  
Bremen, Indiana 46506**

(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.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted 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 MSOP under 326 IAC 2-6.1.

Operation Permit No. M099-34075-00047	
Issued by:  Nathan C. Bell, Section Chief Permits Branch Office of Air Quality	Issuance Date: June 10, 2014  Expiration Date: June 10, 2019



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Attachment A: National Emission Standard for Wood Furniture Manufacturing Operations NESHAP [40 CFR Part 63, Subpart JJ]

## 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 and A.2 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 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

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The Permittee owns and operates a stationary stationary wood furniture and kitchen cabinetry surface coating operation.

Source Address:	712 North Bowen and 1456 State Road 331 N., Bremen, Indiana 46506
General Source Phone Number:	574-546-2781
SIC Code:	2434
County Location:	Marshall
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Source Definition

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This source consists of the following plants:

- (a) Bremtown Fine Custom Cabinetry, Inc. is located at 712 North Bowen Avenue, Bremen, Indiana 46506, Plant ID: 099-00047; and
- (b) Bremtown Fine Custom Cabinetry, Inc. is located at 1456 State Route 331 North, Bremen, Indiana 46506, Plant ID: 099-00047.

These plants are located on adjacent properties, have the same SIC codes and are under common control; therefore they are considered one (1) source, as defined by 326 IAC 2-7-1(22).

### A.3 Emission Units and Pollution Control Equipment Summary

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

Plant 1 consisting of the following:

- (a) One (1) woodworking operation, identified as Plant 1 - Wood Shop, constructed in 1979, with a maximum capacity of 490 pounds of wood per hour, exhausting to stack Plant 1 - Baghouse X.
- (b) One (1) surface coating booth, identified as Plant 1 - Hand Wipe Application, constructed in 1979, with a maximum capacity of 0.0117 pounds of coatings and solvents per hour, using wipe application, using no controls, and exhausting indoors.
- (c) One (1) surface coating booth, identified as Plant 1 - Sealer Booth, constructed in 1979, with a maximum capacity of 3.857 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 1 - Sealer BoothX.

- (d) One (1) surface coating booth, identified as Plant 1 - Topcoat Booth, constructed in 1979, with a maximum capacity of 2.0899 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 1 - Topcoat BoothX.
- (e) One (1) surface coating booth, identified as Plant 1 - Cup Gun, constructed in 1979, with a maximum capacity of 0.0135 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting indoors.

Plant 2 consisting of the following:

- (f) One (1) surface coating booth, identified as Plant 2 - Wipe Stain Area, constructed in 2001, with a maximum capacity of 1.9731 pounds of coatings and solvents per hour, using wipe application, using no controls, and exhausting indoors.
- (g) One (1) surface coating booth, identified as Plant 2 - Primer/Sealer Booth1 (PB2), constructed in 2001, with a maximum capacity of 2.1119 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Primer/Sealer Booth 1 (PB2)X.
- (h) One (1) surface coating booth, identified as Plant 2 - Primer/Sealer Booth 2 (PB3), constructed in 2001, with a maximum capacity of 2.0424 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Primer/Sealer Booth 2 (PB3)X.
- (i) One (1) surface coating booth, identified as Plant 2 - Primer/Sealer Booth 3 (PB4), constructed in 2001, with a maximum capacity of 2.0078 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Primer/Sealer Booth 3 (PB4)X.
- (j) One (1) surface coating booth, identified as Plant 2 - Rework Booth (PB5), constructed in 2001, with a maximum capacity of 1.7132 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Rework Booth (PB5)X.
- (k) One (1) surface coating booth, identified as Plant 2 - Topcoat Booth (PB6), constructed in 2001, with a maximum capacity of 2.6553 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Topcoat Booth (PB6)X
- (l) One (1) surface coating booth, identified as Plant 2 - Sample Booth (Booth #4), constructed in 1994, with a maximum capacity of 3.0188 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to Plant 2 - Sample Booth (Booth #4)X.

All of the surface coating booths at Plant 1 and Plant 2 are considered affected an affected source under 40 CFR 63, Subpart JJ, National Emissions Standards for Wood Furniture Manufacturing Operations

Insignificant Activities:

- (m) One (1) wood-fired incinerator, identified as Incinerator, constructed in 1979, with a maximum capacity of 90 pounds of clean scrap wood per hour, exhausting to stack IncineratorX.

Note: The Permittee will only combust clean wood in the wood-fired incinerator. Clean wood consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. Clean wood does not include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

- (n) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].
- (o) On-site fire and emergency response training approved by the department.
- (p) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour: Nine (9) air make-up units with a total maximum heat input capacity of 4.6 MMBtu per hour.

## **SECTION B GENERAL CONDITIONS**

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

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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 2-1.1-1) shall prevail.

### **B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]**

- 
- (a) This permit, M099-34075-00047, 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, until the renewal permit has been issued or denied.

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

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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**

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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**

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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**

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

### **B.7 Duty to Provide Information**

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- (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 Annual Notification [326 IAC 2-6.1-5(a)(5)]**

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- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

**B.9 Preventive Maintenance Plan [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this permit, 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 Permittee shall implement the PMPs.

- (b) 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.
- (c) 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.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to M099-34075-00047 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

**B.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]**

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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 one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

**B.12 Permit Renewal [326 IAC 2-6.1-7]**

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- (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 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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 one hundred twenty (120) days 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 2-6.1 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 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

**B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]**

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- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 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
- (c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

**B.14 Source Modification Requirement**

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

**B.15 Inspection and Entry**

[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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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 permitted 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, at reasonable times, 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, at reasonable times, 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, at reasonable times, 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.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 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

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

**B.17 Annual Fee Payment [326 IAC 2-1.1-7]**

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- (a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ,.
- (b) 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.18 Credible Evidence [326 IAC 1-1-6]**

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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 2-6.1-5(a)(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 Permit Revocation [326 IAC 2-1.1-9]

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

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

#### C.3 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.4 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.5 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.6 Fugitive Dust Emissions [326 IAC 6-4]

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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).

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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- (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.

- (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 2-6.1-5(a)(2)]**

#### **C.8 Performance Testing [326 IAC 3-6]**

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- (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.
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.
- (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.9 Compliance Requirements [326 IAC 2-1.1-11]**

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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 2-6.1-5(a)(2)]**

#### **C.10 Compliance Monitoring [326 IAC 2-1.1-11]**

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Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

#### **C.11 Instrument Specifications [326 IAC 2-1.1-11]**

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- (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**

#### **C.12 Response to Excursions or Exceedances**

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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.13 Actions Related to Noncompliance Demonstrated by a Stack Test**

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- (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.

### **Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]**

#### **C.14 Malfunctions Report [326 IAC 1-6-2]**

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

#### **C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]**

- (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. 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.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]**

- (a) Reports required by conditions in Section D of 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

- (b) 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.

- (c) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. 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.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

Plant 1 consisting of the following:

- (b) One (1) surface coating booth, identified as Plant 1 - Hand Wipe Application, constructed in 1979, with a maximum capacity of 0.0117 pounds of coatings and solvents per hour, using wipe application, using no controls, and exhausting indoors.
- (c) One (1) surface coating booth, identified as Plant 1 - Sealer Booth, constructed in 1979, with a maximum capacity of 3.857 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 1 - Sealer BoothX.
- (d) One (1) surface coating booth, identified as Plant 1 - Topcoat Booth, constructed in 1979, with a maximum capacity of 2.0899 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 1 - Topcoat BoothX.
- (e) One (1) surface coating booth, identified as Plant 1 - Cup Gun, constructed in 1979, with a maximum capacity of 0.0135 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting indoors.

Plant 2 consisting of the following:

- (f) One (1) surface coating booth, identified as Plant 2 - Wipe Stain Area, constructed in 2001, with a maximum capacity of 1.9731 pounds of coatings and solvents per hour, using wipe application, using no controls, and exhausting indoors.
- (g) One (1) surface coating booth, identified as Plant 2 - Primer/Sealer Booth1 (PB2), constructed in 2001, with a maximum capacity of 2.1119 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Primer/Sealer Booth 1 (PB2)X.
- (h) One (1) surface coating booth, identified as Plant 2 - Primer/Sealer Booth 2 (PB3), constructed in 2001, with a maximum capacity of 2.0424 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Primer/Sealer Booth 2 (PB3)X.
- (i) One (1) surface coating booth, identified as Plant 2 - Primer/Sealer Booth 3 (PB4), constructed in 2001, with a maximum capacity of 2.0078 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Primer/Sealer Booth 3 (PB4)X.
- (j) One (1) surface coating booth, identified as Plant 2 - Rework Booth (PB5), constructed in 2001, with a maximum capacity of 1.7132 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Rework Booth (PB5)X.

- (k) One (1) surface coating booth, identified as Plant 2 - Topcoat Booth (PB6), constructed in 2001, with a maximum capacity of 2.6553 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Topcoat Booth (PB6)X
- (l) One (1) surface coating booth, identified as Plant 2 - Sample Booth (Booth #4), constructed in 1994, with a maximum capacity of 3.0188 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to Plant 2 - Sample Booth (Booth #4)X.

All of the surface coating booths at Plant 1 and Plant 2 are considered affected an affected source under 40 CFR 63, Subpart JJ, National Emissions Standards for Wood Furniture Manufacturing Operations

(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 [326 IAC 2-6.1-5(a)(1)]**

#### **D.1.1 Particulate Emissions Limitations [326 IAC 6-3-2(d)]**

Pursuant to 326 IAC 6-3-2(d), the Permittee shall comply with the following for the surface coating booths Plant 1 - Sealer Booth, Plant 1 - Topcoat Booth, Plant 2 - Primer/Sealer Booth 1 (PB2), Plant 2 - Rework Booth (PB5), Plant 2 - Topcoat Booth (PB6), and Plant 2 - Sample Booth (Booth #4):

- (a) The surface coating booths shall each be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the control device and do either of the following no later than four (4) hours after such observation:
  - (A) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
  - (B) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the source shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

#### **D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]**

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets in booths Plant 2 - Primer/Sealer Booth 1 (PB2), Plant 2 - Primer/Sealer Booth 2 (PB3), Plant 2 - Primer/Sealer Booth 3 (PB4), Plant 2 - Rework Booth (PB5), Plant 2 - Topcoat Booth (PB6), and Plant 2 - Sample Booth (Booth #4) 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.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]**

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

**Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]**

**D.1.4 Record Keeping Requirements**

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- (a) To document the compliance status with Condition D.1.1(b), the Permittee shall maintain a log of weekly overspray observations and daily and monthly inspections.
- (b) Section C - General Record Keeping Requirements of this permit contains the Permittee’s obligations with regard to the records required by this condition.

**SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

Plant 1 consisting of the following:

(a) One (1) woodworking operation, identified as Plant 1 - Wood Shop, constructed in 1979, with a maximum capacity of 490 pounds of wood per hour, exhausting to stack Plant 1 - Baghouse X.

(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 [326 IAC 2-6.1-5(a)(1)]**

**D.2.1 PSD Minor Limitations [326 IAC 2-2]**

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable, the PM, PM10, and PM2.5 emissions after control shall be less than the following emission limitations:

Emission Unit Description	Control Device	PM Emission Limit (lbs/hour)	PM10 Emission Limit (lbs/hour)	PM2.5 Emission Limit (lbs/hour)
Woodworking Equipment, Plant 1	Baghouse	1.60	1.60	1.60

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 total potential to emit of PM, PM10, and PM2.5 to less than 250 tons per year, each, and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the woodworking operation shall not exceed 1.60 pounds per hour when operating as a process weight rate of 0.245 tons per hour.

This limitation was calculated using the following equation:

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

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

**D.2.3 Preventive Maintenance Plan [326 IAC 1-6-3]**

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

## **Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]**

### **D.2.4 Visible Emissions Notations**

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- (a) Daily visible emission notations of the woodworking operation exhaust shall be performed during normal daylight operations. 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 steps. 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.

## **Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]**

### **D.2.5 Record Keeping Requirements**

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- (a) To document the compliance status with Condition D.2.3, the Permittee shall maintain records of daily visible emission notations of the woodworking operation exhaust. 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 of this permit contains the Permittee's obligations with regard to the records required by this condition.

## SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

#### Insignificant Activities:

- (m) One (1) wood-fired incinerator, identified as Incinerator, constructed in 1979, with a maximum capacity of 90 pounds of clean scrap wood per hour, exhausting to stack IncineratorX.

Note: The Permittee will only combust clean wood in the wood-fired incinerator. Clean wood consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. Clean wood does not include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

(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 [326 IAC 2-6.1-5(a)(1)]

#### D.3.1 Incinerators [326 IAC 4-2-2]

Pursuant to 326 IAC 4-2-2 (Incinerators), the Permittee shall comply with the following for the incinerator:

- (a) All incinerators shall comply with the following requirements:
- (1) Consist of primary and secondary chambers or the equivalent.
  - (2) Be equipped with a primary burner unless burning only wood products.
  - (3) Comply with 326 IAC 5-1 and 326 IAC 2.
  - (4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in subsection (c).
  - (5) Not emit particulate matter in excess of one (1) of the following:
    - (i) Three-tenths (0.3) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with a maximum solid waste capacity of greater than or equal to two hundred (200) pounds per hour.
    - (ii) Five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with solid waste capacity less than two hundred (200) pounds per hour.
  - (6) If any of the requirements of subdivisions (1) through (5) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

- (b) An incinerator is exempt from subsection (a)(5) if subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P\*, State Implementation Plan for Indiana.
- (c) An owner or operator developing an operation and maintenance plan pursuant to subsection (a)(4) must comply with the following:
  - (1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in subsection (a)(5) and include the following:
    - (A) Procedures for receiving, handling, and charging waste.
    - (B) Procedures for incinerator startup and shutdown.
    - (C) Procedures for responding to a malfunction.
    - (D) Procedures for maintaining proper combustion air supply levels.
    - (E) Procedures for operating the incinerator and associated air pollution control systems.
    - (F) Procedures for handling ash.
    - (G) A list of wastes that can be burned in the incinerator.
  - (2) Each incinerator operator shall review the plan before initial implementation of the operation and maintenance plan and annually thereafter.
  - (3) The operation and maintenance plan must be readily accessible to incinerator operators.
  - (4) The owner or operator of the incinerator shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.
- (d) The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

## SECTION E.1 FACILITY OPERATION CONDITIONS

### Emissions Unit Description:

Plant 1 consisting of the following:

- (b) One (1) surface coating booth, identified as Plant 1 - Hand Wipe Application, constructed in 1979, with a maximum capacity of 0.0117 pounds of coatings and solvents per hour, using wipe application, using no controls, and exhausting indoors.
- (c) One (1) surface coating booth, identified as Plant 1 - Sealer Booth, constructed in 1979, with a maximum capacity of 3.857 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 1 - Sealer BoothX.
- (d) One (1) surface coating booth, identified as Plant 1 - Topcoat Booth, constructed in 1979, with a maximum capacity of 2.0899 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 1 - Topcoat BoothX.
- (e) One (1) surface coating booth, identified as Plant 1 - Cup Gun, constructed in 1979, with a maximum capacity of 0.0135 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting indoors.

Plant 2 consisting of the following:

- (f) One (1) surface coating booth, identified as Plant 2 - Wipe Stain Area, constructed in 2001, with a maximum capacity of 1.9731 pounds of coatings and solvents per hour, using wipe application, using no controls, and exhausting indoors.
- (g) One (1) surface coating booth, identified as Plant 2 - Primer/Sealer Booth1 (PB2), constructed in 2001, with a maximum capacity of 2.1119 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Primer/Sealer Booth 1 (PB2)X.
- (h) One (1) surface coating booth, identified as Plant 2 - Primer/Sealer Booth 2 (PB3), constructed in 2001, with a maximum capacity of 2.0424 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Primer/Sealer Booth 2 (PB3)X.
- (i) One (1) surface coating booth, identified as Plant 2 - Primer/Sealer Booth 3 (PB4), constructed in 2001, with a maximum capacity of 2.0078 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Primer/Sealer Booth 3 (PB4)X.
- (j) One (1) surface coating booth, identified as Plant 2 - Rework Booth (PB5), constructed in 2001, with a maximum capacity of 1.7132 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Rework Booth (PB5)X.

- (k) One (1) surface coating booth, identified as Plant 2 - Topcoat Booth (PB6), constructed in 2001, with a maximum capacity of 2.6553 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Topcoat Booth (PB6)X
- (l) One (1) surface coating booth, identified as Plant 2 - Sample Booth (Booth #4), constructed in 1994, with a maximum capacity of 3.0188 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to Plant 2 - Sample Booth (Booth #4)X.

All of the surface coating booths at Plant 1 and Plant 2 are considered affected an affected source under 40 CFR 63, Subpart JJ, National Emissions Standards for Wood Furniture Manufacturing Operations

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

### **National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [46 CFR 63]**

#### **E.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) [40 CFR Part 63, Subpart A] [326 IAC 20-1]**

Pursuant to 40 CFR 63, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, except as otherwise specified in 40 CFR 63 Subpart JJ, which are incorporated by reference as 326 IAC 20-1, for the each of the surface coating booths (Plant 1 - Hand Wipe Application, Plant 1 - Sealer Booth, Plant 1 - Topcoat Booth, Plant 1 - Cup Gun, Plant 2 - Wipe Stain Area, Plant 2 - Primer/Sealer Booth 1 (PB2), Plant 2 - Primer/Sealer Booth 2 (PB3), Plant 2 - Primer/Sealer Booth 3 (PB4), Plant 2 - Rework Booth (PB5), Plant 2 - Topcoat Booth (PB6), and Plant 2 - Sample Booth (Booth #4)).

#### **E.1.2 National Emissions Standards for Wood Furniture Manufacturing Operations [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 of this permit), which are incorporated by reference as 326 IAC 20-14, for each of the surface coating booths (Plant 1 - Hand Wipe Application, Plant 1 - Sealer Booth, Plant 1 - Topcoat Booth, Plant 1 - Cup Gun, Plant 2 - Wipe Stain Area, Plant 2 - Primer/Sealer Booth 1 (PB2), Plant 2 - Primer/Sealer Booth 2 (PB3), Plant 2 - Primer/Sealer Booth 3 (PB4), Plant 2 - Rework Booth (PB5), Plant 2 - Topcoat Booth (PB6), and Plant 2 - Sample Booth (Booth #4)):

- (1) 40 CFR 63.800
- (2) 40 CFR 63.801
- (3) 40 CFR 63.802(a)
- (4) 40 CFR 63.803
- (5) 40 CFR 63.804(a)(1), (2), (b), (c)(1), (f)(1), (2), (3), (5), (7), (8), (g)(1), (2), (3), (5), (7), and (8)
- (6) 40 CFR 63.805(a), (b), (c), and (d)
- (7) 40 CFR 63.806(a), (b), (c), (d), (e), (h), (i), and (j)
- (8) 40 CFR 63.807(a), (b), (c), and (e)
- (9) 40 CFR 63.808(a), (b), (c)(1), (3), (4), and (5)
- (10) Table 1 to 40 CFR Part 63, Subpart JJ (applicable portions)
- (11) Table 2 to 40 CFR Part 63, Subpart JJ (applicable portions)
- (12) Table 3 to 40 CFR Part 63, Subpart JJ (applicable portions)
- (13) Table 4 to 40 CFR Part 63, Subpart JJ (applicable portions)
- (14) Table 5 to 40 CFR Part 63, Subpart JJ (applicable portions)
- (15) Table 6 to 40 CFR Part 63, Subpart JJ (applicable portions)

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

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

<b>Company Name:</b>	Bremtown Fine Custom Cabinetry, Inc.
<b>Address:</b>	712 North Bowen and 1456 State Road 331 N.
<b>City:</b>	Bremen, Indiana 46506
<b>Phone #:</b>	574-546-2781
<b>MSOP #:</b>	M099-34075-00047

I hereby certify that Bremtown Fine Custom Cabinetry, Inc.  still in operation.

:

no longer in operation.

I hereby certify that Bremtown Fine Custom Cabinetry, Inc.  in compliance with the requirements of MSOP M099-34075-00047.

:

not in compliance with the requirements of MSOP M099-34075-00047.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

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

<b>Noncompliance:</b>

**MALFUNCTION REPORT**  
**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**OFFICE OF AIR QUALITY**  
**COMPLIANCE AND ENFORCEMENT BRANCH**  
**FAX NUMBER: (317) 233-6865**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?\_\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ?\_\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES?\_\_\_\_\_, 25 TONS/YEAR VOC ?\_\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ?\_\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ?\_\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?\_\_\_\_\_, 25 TONS/YEAR FLUORIDES ?\_\_\_\_\_, 100 TONS/YEAR CARBON MONOXIDE ?\_\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ?    Y        N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ?    Y        N

COMPANY: \_\_\_\_\_ PHONE NO. (    ) \_\_\_\_\_  
LOCATION: (CITY AND COUNTY) \_\_\_\_\_  
PERMIT NO. \_\_\_\_\_ AFS PLANT ID: \_\_\_\_\_ AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/20\_\_\_\_    \_\_\_\_\_ AM / PM  
ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/20\_\_\_\_    \_\_\_\_\_ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: \_\_\_\_\_  
ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:  
CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_  
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_  
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_  
INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\*SEE PAGE 2

**Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

**\*Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

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## Attachment A

### Title 40: Protection of Environment

#### PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES (CONTINUED)

##### Subpart JJ—National Emissions Standards for Wood Furniture Manufacturing Operations

SOURCE: 60 FR 62936, Dec. 7, 1995, unless otherwise noted.

#### §63.800 Applicability.

(a) The affected source to which this subpart applies is each facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source as defined in 40 CFR part 63, subpart A, §63.2. The owner or operator of a source that meets the definition for an incidental wood furniture manufacturer shall maintain purchase or usage records demonstrating that the source meets the definition in §63.801 of this subpart, but the source shall not be subject to any other provisions of this subpart.

(b) A source that complies with the limits and criteria specified in paragraphs (b)(1), (b)(2), or (b)(3) of this section is an area source for the purposes of this subpart and is not subject to any other provision of this rule, provided that: In the case of paragraphs (b)(1) and (b)(2), finishing materials, adhesives, cleaning solvents and washoff solvents used for wood furniture or wood furniture component manufacturing operations account for at least 90 percent of annual HAP emissions at the plant site, and if the plant site has HAP emissions that do not originate from the listed materials, the owner or operator shall keep any records necessary to demonstrate that the 90 percent criterion is being met. A source that initially relies on the limits and criteria specified in paragraphs (b)(1), (b)(2), and (b)(3) to become an area source, but subsequently exceeds the relevant limit (without first obtaining and complying with other limits that keep its potential to emit hazardous air pollutants below major source levels), becomes a major source and must comply thereafter with all applicable provisions of this subpart starting on the applicable compliance date in §63.800. Nothing in this paragraph (b) is intended to preclude a source from limiting its potential to emit through other appropriate mechanisms that may be available through the permitting authority.

(1) The owner or operator of the source uses no more than 250 gallons per month, for every month, of coating, gluing, cleaning, and washoff materials at the source, including materials used for source categories other than wood furniture (surface coating), but excluding materials used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining motor vehicles operated by the facility, or the use of toxic chemicals contained in intake water (used for processing or noncontact cooling) or intake air (used either as compressed air or for combustion). The owner or operator shall maintain records of the total gallons of coating, gluing, cleaning, and washoff materials used each month, and upon request submit such records to the Administrator. These records shall be maintained for five years.

(2) The owner or operator of the source uses no more than 3,000 gallons per rolling 12-month period, for every 12-month period, of coating, gluing, cleaning, and washoff materials at the source, including materials used for source categories other than wood furniture (surface coating), but excluding materials used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining motor vehicles operated by the facility, or the use of toxic chemicals contained in intake water (used for processing or noncontact cooling) or intake air (used either as compressed air or for combustion). A rolling 12-month period includes the previous 12 months of operation. The owner or operator of the source shall maintain records of the total gallons of coating, gluing, cleaning, and washoff materials used each month and the total gallons used each

previous month, and upon request submit such records to the Administrator. Because records are needed over the previous set of 12 months, the owner or operator shall keep monthly records beginning no less than one year before the compliance date specified in §63.800(e). Records shall be maintained for five years.

(3) The source emits no more than 4.5 Mg (5 tons) of any one HAP per rolling 12-month period and no more than 11.4 Mg (12.5 tons) of any combination of HAP per rolling 12-month period, and at least 90 percent of the plantwide emissions per rolling 12-month period are associated with the manufacture of wood furniture or wood furniture components.

(c) This subpart does not apply to research or laboratory facilities as defined in §63.801.

(d) This subpart does not apply to any surface coating or coating operation that meets any of the criteria of paragraphs (d)(1) through (4) of this section.

(1) Surface coating of metal parts and products other than metal components of wood furniture that meets the applicability criteria for miscellaneous metal parts and products surface coating (subpart MMMM of this part).

(2) Surface coating of plastic parts and products other than plastic components of wood furniture that meets the applicability criteria for plastic parts and products surface coating (subpart PPPP of this part).

(3) Surface coating of wood building products that meets the applicability criteria for wood building products surface coating (subpart QQQQ of this part). The surface coating of millwork and trim associated with cabinet manufacturing are subject to subpart JJ.

(4) Surface coating of metal furniture that meets the applicability criteria for metal furniture surface coating (subpart RRRR of this part). Surface coating of metal components of wood furniture performed at a wood furniture or wood furniture component manufacturing facility are subject to subpart JJ.

(e) Owners or operators of affected sources shall also comply with the requirements of subpart A of this part (General Provisions), according to the applicability of subpart A to such sources, as identified in Table 1 of this subpart.

(f) The compliance date for existing affected sources that emit less than 50 tons per year of HAP in 1996 is December 7, 1998. The compliance date for existing affected sources that emit 50 tons or more of hazardous air pollutants in 1996 is November 21, 1997. The owner or operator of an existing area source that increases its emissions of (or its potential to emit) HAP such that the source becomes a major source that is subject to this subpart shall comply with this subpart one year after becoming a major source.

(g) Existing affected sources shall be in compliance with §63.802(a)(4) and §63.803(h) no later than November 21, 2014. The owner or operator of an existing area source that increases its emissions of (or its potential to emit) hazardous air pollutants (HAP) such that the source becomes a major source that is subject to this subpart shall comply with this subpart 1 year after becoming a major source.

(h) New affected sources must comply with the provisions of this standard immediately upon startup or by December 7, 1995, whichever is later. New area sources that become major sources shall comply with the provisions of this standard immediately upon becoming a major source.

(i) Reconstructed affected sources are subject to the requirements for new affected sources. The costs associated with the purchase and installation of air pollution control equipment (e.g., incinerators,

carbon adsorbers, etc.) are not considered in determining whether the facility has been reconstructed, unless the control equipment is required as part of the process (e.g., product recovery). Additionally, the costs of retrofitting and replacement of equipment that is installed specifically to comply with this subpart are not considered reconstruction costs. For example, an affected source may convert to waterborne coatings to meet the requirements of this subpart. At most facilities, this conversion will require the replacement of existing storage tanks, mix equipment, and transfer lines. The cost of replacing the equipment is not considered in determining whether the facility has been reconstructed.

(j) If the owner or operator, in accordance with 40 CFR 63.804, uses a control system as a means of limiting emissions, in response to an action to enforce the standards set forth in this subpart, you may assert an affirmative defense to a claim for civil penalties for exceedances of such standards that are caused by malfunction, as defined in 40 CFR 63.2. Appropriate penalties may be assessed, however, if the respondent fails to meet its burden of proving all the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(1) To establish the affirmative defense in any action to enforce such a limit, the owner or operator must timely meet the notification requirements in paragraph (j)(2) of this section, and must prove by a preponderance of evidence that:

(i) The excess emissions:

(A) Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner; and

(B) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(C) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(D) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(ii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(iii) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and

(iv) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(v) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment, and human health; and

(vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(vii) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs; and

(viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions; and

(ix) A written root cause analysis has been prepared, the purpose of which is to determine, correct and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(2) *Notification.* The owner or operator of the facility experiencing an exceedance of its emission limit(s) during a malfunction shall notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than 2 business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in this subpart to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (h)(1) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

[60 FR 62936, Dec. 7, 1995, as amended at 62 FR 30259, June 3, 1997; 76 FR 72071, Nov. 21, 2011]

#### **§63.801 Definitions.**

(a) All terms used in this subpart that are not defined below have the meaning given to them in the CAA and in subpart A (General Provisions) of this part.

*Adhesive* means any chemical substance that is applied for the purpose of bonding two surfaces together other than by mechanical means. Under this subpart, adhesives shall not be considered coatings or finishing materials. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives under this subpart.

*Administrator* means the Administrator of the United States Environmental Protection Agency or his or her authorized representative.

*Aerosol adhesive* means an adhesive that is dispensed from a pressurized container as a suspension of fine solid or liquid particles in gas.

*Affected source* means a wood furniture manufacturing facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components and that is located at a plant site that is a major source as defined in 40 CFR part 63.2, excluding sources that meet the criteria established in §63.800(a), (b) and (c) of this subpart.

*Affirmative defense* means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

*Alternative method* means any method of sampling and analyzing for an air pollutant that is not a reference or equivalent method but has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for a determination of compliance.

*As applied* means the HAP and solids content of the coating or contact adhesive that is actually used for coating or gluing the substrate. It includes the contribution of materials used for in-house dilution of the coating or contact adhesive.

*Basecoat* means a coat of colored material, usually opaque, that is applied before graining inks, glazing coats, or other opaque finishing materials, and is usually topcoated for protection.

*Baseline conditions* means the conditions that exist prior to an affected source implementing controls, such as a control system.

*Building enclosure* means a building housing a process that meets the requirements of a temporary total enclosure. The EPA Method 204E is used to identify all emission points from the building enclosure and to determine which emission points must be tested. For additional information see *Guidelines for Determining Capture Efficiency*, January 1994. Docket No. A-93-10, Item No. IV-B-1.

*Capture device* means a hood, enclosed room, floor sweep, or other means of collecting solvent emissions or other pollutants into a duct so that the pollutant can be directed to a pollution control device such as an incinerator or carbon adsorber.

*Capture efficiency* means the fraction of all organic vapors generated by a process that are directed to a control device.

*Certified product data sheet (CPDS)* means documentation furnished by coating or adhesive suppliers or an outside laboratory that provides:

(1) The VHAP content of a finishing material, contact adhesive, or solvent, by percent weight, measured using the EPA Method 311 (as promulgated in this subpart), or an equivalent or alternative method (or formulation data if the coating meets the criteria specified in §63.805(a));

(2) The solids content of a finishing material or contact adhesive by percent weight, determined using data from the EPA Method 24, or an alternative or equivalent method (or formulation data if the coating meets the criteria specified in §63.805 (a)); and

(3) The density, measured by EPA Method 24 or an alternative or equivalent method. Therefore, the reportable VHAP content shall represent the maximum aggregate emissions potential of the finishing material, adhesive, or solvent in concentrations greater than or equal to 1.0 percent by weight or 0.1 percent for VHAP that are carcinogens, as defined by the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR part 1910), as formulated. Only VHAP present in concentrations greater than or equal to 1.0 percent by weight, or 0.1 percent for VHAP that are carcinogens, must be reported on the CPDS. The purpose of the CPDS is to assist the affected source in demonstrating compliance with the emission limitations presented in §63.802.

NOTE: Because the optimum analytical conditions under EPA Method 311 vary by coating, the coating or adhesive supplier may also choose to include on the CPDS the optimum analytical conditions for analysis of the coating, adhesive, or solvent using EPA Method 311. Such information may include, but not be limited to, separation column, oven temperature, carrier gas, injection port temperature, extraction solvent, and internal standard.)

*Cleaning operations* means operations in which organic HAP solvent is used to remove coating materials or adhesives from equipment used in wood furniture manufacturing operations.

*Coating* means a protective, decorative, or functional film applied in a thin layer to a surface. Such materials include, but are not limited to, paints, topcoats, varnishes, sealers, stains, washcoats,

basecoats, enamels, inks, and temporary protective coatings. Aerosol spray paints used for touch-up and repair are not considered coatings under this subpart.

*Coating application station* means the part of a coating operation where the coating is applied, e.g., a spray booth.

*Coating operation* means those activities in which a coating is applied to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation.

*Coating solids (or solids)* means the part of the coating which remains after the coating is dried or cured; solids content is determined using data from the EPA Method 24, or an equivalent or alternative method.

*Compliant coating/contact adhesive* means a finishing material, contact adhesive, or strippable booth coating that meets the emission limits specified in Table 3 of this subpart.

*Contact adhesive* means an adhesive that is applied to two substrates, dried, and mated under only enough pressure to result in good contact. The bond is immediate and sufficiently strong to hold pieces together without further clamping, pressure, or airing.

*Continuous coater* means a finishing system that continuously applies finishing materials onto furniture parts moving along a conveyor. Finishing materials that are not transferred to the part are recycled to a reservoir. Several types of application methods can be used with a continuous coater including spraying, curtain coating, roll coating, dip coating, and flow coating.

*Continuous compliance* means that the affected source is meeting the emission limitations and other requirements of the rule at all times and is fulfilling all monitoring and recordkeeping provisions of the rule in order to demonstrate compliance.

*Control device* means any equipment that reduces the quantity of a pollutant that is emitted to the air. The device may destroy or secure the pollutant for subsequent recovery. Includes, but is not limited to, incinerators, carbon adsorbers, and condensers.

*Control device efficiency* means the ratio of the pollutant released by a control device and the pollutant introduced to the control device.

*Control system* means the combination of capture and control devices used to reduce emissions to the atmosphere.

*Conventional air spray* means a spray coating method in which the coating is atomized by mixing it with compressed air and applied at an air pressure greater than 10 pounds per square inch (gauge) at the point of atomization. Airless and air assisted airless spray technologies are not conventional air spray because the coating is not atomized by mixing it with compressed air. Electrostatic spray technology is also not considered conventional air spray because an electrostatic charge is employed to attract the coating to the workpiece.

*Data quality objective (DQO) approach* means a set of approval criteria that must be met so that data from an alternative test method can be used in determining the capture efficiency of a control system. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A-93-10, Item No. IV-B-1).

*Day* means a period of 24 consecutive hours beginning at midnight local time, or beginning at a time consistent with a facility's operating schedule.

*Disposed offsite* means sending used organic HAP solvent or coatings outside of the facility boundaries for disposal.

*Emission* means the release or discharge, whether directly or indirectly, of HAP into the ambient air.

*Enamel* means a coat of colored material, usually opaque, that is applied as a protective topcoat over a basecoat, primer, or previously applied enamel coats. In some cases, another finishing material may be applied as a topcoat over the enamel.

*Equipment leak* means emissions of VHAP from pumps, valves, flanges, or other equipment used to transfer or apply coatings, adhesives, or organic HAP solvents.

*Equivalent method* means any method of sampling and analyzing for an air pollutant that has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specific conditions.

*Finishing material* means a coating used in the wood furniture industry. Such materials include, but are not limited to, stains, basecoats, washcoats, enamels, sealers, and topcoats.

*Finishing operation* means those operations in which a finishing material is applied to a substrate and is subsequently air-dried, cured in an oven, or cured by radiation.

*Foam adhesive* means a contact adhesive used for gluing foam to fabric, foam to foam, and fabric to wood.

*Gluing operation* means those operations in which adhesives are used to join components, for example, to apply a laminate to a wood substrate or foam to fabric.

*Incidental wood furniture manufacturer* means a major source that is primarily engaged in the manufacture of products other than wood furniture or wood furniture components and that uses no more than 100 gallons per month of finishing material or adhesives in the manufacture of wood furniture or wood furniture components.

*Incinerator* means, for the purposes of this industry, an enclosed combustion device that thermally oxidizes volatile organic compounds to CO and CO<sub>2</sub>. This term does not include devices that burn municipal or hazardous waste material.

*Janitorial maintenance* means the upkeep of equipment or building structures that is not directly related to the manufacturing process, for example, cleaning of restroom facilities.

*Low-formaldehyde* means, in the context of a coating or contact adhesive, a product concentration of less than or equal to 1.0 percent formaldehyde by weight, as described in a certified product data sheet for the material.

*Lower confidence limit (LCL) approach* means a set of approval criteria that must be met so that data from an alternative test method can be used in determining the capture efficiency of a control system. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A-93-10, Item No. IV-B-1).

*Material safety data sheet (MSDS)* means the documentation required for hazardous chemicals by the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR part 1910) for a solvent, cleaning material, contact adhesive, coating, or other material that identifies

select reportable hazardous ingredients of the material, safety and health considerations, and handling procedures.

*Noncompliant coating/contact adhesive* means a finishing material, contact adhesive, or strippable booth coating that has a VHAP content (VOC content for the strippable booth coating) greater than the emission limitation presented in Table 3 of this subpart.

*Nonporous substrate* means a surface that is impermeable to liquids. Examples include metal, rigid plastic, flexible vinyl, and rubber.

*Normally closed container* means a container that is closed unless an operator is actively engaged in activities such as emptying or filling the container.

*Operating parameter value* means a minimum or maximum value established for a control device or process parameter that, if achieved by itself or in combination with one or more other operating parameter values, determines that an owner or operator has complied with an applicable emission limit.

*Organic HAP solvent* means a HAP that is a volatile organic liquid used for dissolving or dispersing constituents in a coating or contact adhesive, adjusting the viscosity of a coating or contact adhesive, or cleaning equipment. When used in a coating or contact adhesive, the organic HAP solvent evaporates during drying and does not become a part of the dried film.

*Overall control efficiency* means the efficiency of a control system, calculated as the product of the capture and control device efficiencies, expressed as a percentage.

*Permanent total enclosure* means a permanently installed enclosure that completely surrounds a source of emissions such that all emissions are captured and contained for discharge through a control device. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A-93-10, Item No. IV-B-1).

*Recycled onsite* means the reuse of an organic HAP solvent in a process other than cleaning or washoff.

*Reference method* means any method of sampling and analyzing for an air pollutant that is published in appendix A of 40 CFR part 60.

*Research or laboratory facility* means any stationary source whose primary purpose is to conduct research and development to develop new processes and products where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

*Responsible official* has the meaning given to it in 40 CFR part 70, State Operating Permit Programs (Title V permits).

*Sealer* means a finishing material used to seal the pores of a wood substrate before additional coats of finishing material are applied. Special purpose finishing materials that are used in some finishing systems to optimize aesthetics are not sealers.

*Solvent* means a liquid used in a coating or contact adhesive to dissolve or disperse constituents and/or to adjust viscosity. It evaporates during drying and does not become a part of the dried film.

*Stain* means any color coat having a solids content by weight of no more than 8.0 percent that is applied in single or multiple coats directly to the substrate. It includes, but is not limited to, nongrain

raising stains, equalizer stains, prestains, sap stains, body stains, no-wipe stains, penetrating stains, and toners.

*Storage containers* means vessels or tanks, including mix equipment, used to hold finishing, gluing, cleaning, or washoff materials.

*Strippable spray booth material* means a coating that:

(1) Is applied to a spray booth wall to provide a protective film to receive over spray during finishing operations;

(2) That is subsequently peeled off and disposed; and

(3) By achieving (1) and (2) of this definition reduces or eliminates the need to use organic HAP solvents to clean spray booth walls.

*Substrate* means the surface onto which a coating or contact adhesive is applied (or into which a coating or contact adhesive is impregnated).

*Temporary total enclosure* means an enclosure that meets the requirements of §63.805(e)(1) (i) through (iv) and is not permanent, but constructed only to measure the capture efficiency of pollutants emitted from a given source. Additionally, any exhaust point from the enclosure shall be at least four equivalent duct or hood diameters from each natural draft opening. For additional information, see *Guidelines for Determining Capture Efficiency*, January 1994. (Docket No. A-93-10, Item No. IV-B-1).

*Thinner* means a volatile liquid that is used to dilute coatings or contact adhesives (to reduce viscosity, color strength, and solids, or to modify drying conditions).

*Topcoat* means the last film-building finishing material that is applied in a finishing system.

*Touchup and repair* means the application of finishing materials to cover minor finishing imperfections.

*VHAP* means any volatile hazardous air pollutant listed in Table 2 to Subpart JJ.

*VHAP of potential concern* means any VHAP from the list in table 6 of this subpart.

*Volatile organic compound (VOC)* means any organic compound which participates in atmospheric photochemical reactions, that is, any organic compound other than those which the Administrator designates as having negligible photochemical reactivity. A VOC may be measured by a reference method, an equivalent method, an alternative method, or by procedures specified under any rule. A reference method, an equivalent method, or an alternative method, however, may also measure nonreactive organic compounds. In such cases, the owner or operator may exclude the nonreactive organic compounds when determining compliance with a standard. For a list of compounds that the Administrator has designated as having negligible photochemical reactivity, refer to 40 CFR part 51.10.

*Washcoat* means a transparent special purpose finishing material having a solids content by weight of 12.0 percent by weight or less. Washcoats are applied over initial stains to protect, to control color, and to stiffen the wood fibers in order to aid sanding.

*Washoff operations* means those operations in which organic HAP solvent is used to remove coating from wood furniture or a wood furniture component.

*Wood furniture* means any product made of wood, a wood product such as rattan or wicker, or an engineered wood product such as particleboard that is manufactured at any facility that is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components, including, but not limited to, facilities under any of the following standard industrial classification codes: 2434, 2511, 2512, 2517, 2519, 2521, 2531, 2541, 2599, or 5712.

*Wood furniture component* means any part that is used in the manufacture of wood furniture. Examples include, but are not limited to, drawer sides, cabinet doors, seat cushions, and laminated tops. However, foam seat cushions manufactured and fabricated at a facility that does not engage in any other wood furniture or wood furniture component manufacturing operation are excluded from this definition.

*Wood furniture manufacturing operations* means the finishing, gluing, cleaning, and washoff operations associated with the production of wood furniture or wood furniture components.

(b) The nomenclature used in this subpart has the following meaning:

(1)  $A_k$  = the area of each natural draft opening (k) in a total enclosure, in square meters.

(2)  $C_c$  = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied. Also given in pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/lb solids).

(3)  $C_{aj}$  = the concentration of VHAP in gas stream (j) exiting the control device, in parts per million by volume.

(4)  $C_{bi}$  = the concentration of VHAP in gas stream (i) entering the control device, in parts per million by volume.

(5)  $C_{di}$  = the concentration of VHAP in gas stream (i) entering the control device from the affected source, in parts per million by volume.

(6)  $C_{rk}$  = the concentration of VHAP in uncontrolled gas stream (k) emitted directly to the atmosphere from the affected source, in parts per million by volume.

(7) E = the emission limit achieved by an emission point or a set of emission points, in kg VHAP/kg solids (lb VHAP/lb solids).

(8) F = the control device efficiency, expressed as a fraction.

(9) FV = the average inward face velocity across all natural draft openings in a total enclosure, in meters per hour.

(10) G = the VHAP content of a contact adhesive, in kg VHAP/kg solids (lb VHAP/lb solids), as applied.

(11) M = the mass of solids in finishing material used monthly, kg solids/month (lb solids/month).

(12) N = the capture efficiency, expressed as a fraction.

(13)  $Q_{aj}$  = the volumetric flow rate of gas stream (j) exiting the control device, in dry standard cubic meters per hour.

(14)  $Q_{bi}$  = the volumetric flow rate of gas stream (i) entering the control device, in dry standard cubic meters per hour.

(15)  $Q_{di}$  = the volumetric flow rate of gas stream (i) entering the control device from the emission point, in dry standard cubic meters per hour.

(16)  $Q_{fk}$  = the volumetric flow rate of uncontrolled gas stream (k) emitted directly to the atmosphere from the emission point, in dry standard cubic meters per hour.

(17)  $Q_{in, i}$  = the volumetric flow rate of gas stream (i) entering the total enclosure through a forced makeup air duct, in standard cubic meters per hour (wet basis).

(18)  $Q_{out, j}$  = the volumetric flow rate of gas stream (j) exiting the total enclosure through an exhaust duct or hood, in standard cubic meters per hour (wet basis).

(19) R = the overall efficiency of the control system, expressed as a percentage.

(20) S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

(21) W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

(22) ac = after the control system is installed and operated.

(23) bc = before control.

(24)  $C_f$  = the formaldehyde content of a finishing material (c), in pounds of formaldehyde per gallon of coating (lb/gal).

(25)  $F_{total}$  = total formaldehyde emissions in each rolling 12 month period.

(26)  $G_f$  = the formaldehyde content of a contact adhesive (g), in pounds of formaldehyde per gallon of contact adhesive (lb/gal).

(27)  $V_c$  = the volume of formaldehyde-containing finishing material (c), in gal.

(28)  $V_g$  = the volume of formaldehyde-containing contact adhesive (g), in gal.

[60 FR 62936, Dec. 7, 1995, as amended at 62 FR 30260, June 3, 1997; 62 FR 31363, June 9, 1997; 63 FR 71380, Dec. 28, 1998; 76 FR 72072, Nov. 21, 2011]

### **§63.802 Emission limits.**

(a) Each owner or operator of an existing affected source subject to this subpart shall:

(1) Limit VHAP emissions from finishing operations by meeting the emission limitations for existing sources presented in Table 3 of this subpart, using any of the compliance methods in §63.804(a). To determine VHAP emissions from a finishing material containing formaldehyde or styrene, the owner or operator of the affected source shall use the methods presented in §63.803(l)(2) for determining styrene and formaldehyde usage.

(2) Limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives based on the following criteria:

(i) For foam adhesives (contact adhesives used for upholstery operations) used in products that meet the upholstered seating flammability requirements of California Technical Bulletin 116, 117, or 133, the Business and Institutional Furniture Manufacturers Association's (BIFMA's) X5.7, UFAC flammability testing, or any similar requirements from local, State, or Federal fire regulatory agencies, the VHAP content of the adhesive shall not exceed 1.8 kg VHAP/kg solids (1.8 lb VHAP/lb solids), as applied; or

(ii) For all other contact adhesives (including foam adhesives used in products that do not meet the standards presented in paragraph (a)(2)(i) of this section, but excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, the VHAP content of the adhesive shall not exceed 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied.

(3) Limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

(4) Limit formaldehyde emissions by complying with the provisions specified in either paragraph (a)(4)(i) or (a)(4)(ii) of this section.

(i) Limit total formaldehyde ( $F_{total}$ ) use in coatings and contact adhesives to no more than 400 pounds per rolling 12 month period.

(ii) Use coatings and contact adhesives only if they are low-formaldehyde coatings and adhesives, in any wood furniture manufacturing operations.

(b) Each owner or operator of a new affected source subject to this subpart shall:

(1) Limit VHAP emissions from finishing operations by meeting the emission limitations for new sources presented in Table 3 of this subpart using any of the compliance methods in §63.804(d). To determine VHAP emissions from a finishing material containing formaldehyde or styrene, the owner or operator of the affected source shall use the methods presented in §63.803(l)(2) for determining styrene and formaldehyde usage.

(2) Limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives, excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, of no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids), as applied, using either of the compliance methods in §63.804(e).

(3) Limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

(4) Limit formaldehyde emissions by complying with the provisions specified in either paragraph (b)(4)(i) or (b)(4)(ii) of this section.

(i) Limit total formaldehyde ( $F_{total}$ ) use in coatings and contact adhesives to no more than 400 pounds per rolling 12 month period.

(ii) Use coatings and contact adhesives only if they are low-formaldehyde coatings and adhesives, in any wood furniture manufacturing operations.

(c) At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety

and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[60 FR 62936, Dec. 7, 1995, as amended at 76 FR 72072, Nov. 21, 2011]

**§63.803 Work practice standards.**

(a) *Work practice implementation plan.* (1) Each owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan that defines environmentally desirable work practices for each wood furniture operation manufacturing operation and addresses each of the work practice standards presented in paragraphs (b) through (l) of this section. The plan shall be developed no more than 60 days after the compliance date.

(2) The written work practice implementation plan shall be available for inspection by the Administrator (or delegated State, local, or Tribal authority) upon request. If the Administrator (or delegated State, local, or Tribal authority) determines that the work practice implementation plan does not include sufficient mechanisms for ensuring that the work practice standards are being implemented, the Administrator (or delegated State, local, or Tribal authority) may require the affected source to modify the plan. Revisions or modifications to the plan do not require a revision of the source's Title V permit.

(3) The inspection and maintenance plan required by paragraph (c) of this section and the formulation assessment plan for finishing operations required by paragraph (l) of this section are also reviewable by the Administrator (or delegated State, local, or Tribal authority).

(b) *Operator training course.* Each owner or operator of an affected source shall train all new and existing personnel, including contract personnel, who are involved in finishing, gluing, cleaning, and washoff operations, use of manufacturing equipment, or implementation of the requirements of this subpart. All new personnel, those hired after the compliance date of the standard, shall be trained upon hiring. All existing personnel, those hired before the compliance date of the standard, shall be trained within six months of the compliance date of the standard. All personnel shall be given refresher training annually. The affected source shall maintain a copy of the training program with the work practice implementation plan. The training program shall include, at a minimum, the following:

(1) A list of all current personnel by name and job description that are required to be trained;

(2) An outline of the subjects to be covered in the initial and refresher training for each position or group of personnel;

(3) Lesson plans for courses to be given at the initial and the annual refresher training that include, at a minimum, appropriate application techniques, appropriate cleaning and washoff procedures, appropriate equipment setup and adjustment to minimize finishing material usage and overspray, and appropriate management of cleanup wastes; and

(4) A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion.

(c) *Inspection and maintenance plan.* Each owner or operator of an affected source shall prepare and maintain with the work practice implementation plan a written leak inspection and maintenance plan that specifies:

(1) A minimum visual inspection frequency of once per month for all equipment used to transfer or apply coatings, adhesives, or organic HAP solvents;

(2) An inspection schedule;

(3) Methods for documenting the date and results of each inspection and any repairs that were made;

(4) The timeframe between identifying the leak and making the repair, which adheres, at a minimum, to the following schedule:

(i) A first attempt at repair (e.g., tightening of packing glands) shall be made no later than five calendar days after the leak is detected; and

(ii) Final repairs shall be made within 15 calendar days after the leak is detected, unless the leaking equipment is to be replaced by a new purchase, in which case repairs shall be completed within three months.

(d) *Cleaning and washoff solvent accounting system.* Each owner or operator of an affected source shall develop an organic HAP solvent accounting form to record:

(1) The quantity and type of organic HAP solvent used each month for washoff and cleaning, as defined in §63.801 of this subpart;

(2) The number of pieces washed off, and the reason for the washoff; and

(3) The quantity of spent organic HAP solvent generated from each washoff and cleaning operation each month, and whether it is recycled onsite or disposed offsite.

(e) *Chemical composition of cleaning and washoff solvents.* Each owner or operator of an affected source shall not use cleaning or washoff solvents that contain any of the pollutants listed in Table 4 to this subpart, in concentrations subject to MSDS reporting as required by OSHA.

(f) *Spray booth cleaning.* Each owner or operator of an affected source shall not use compounds containing more than 8.0 percent by weight of VOC for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters, or plastic filters unless the spray booth is being refurbished. If the spray booth is being refurbished, that is the spray booth coating or other protective material used to cover the booth is being replaced, the affected source shall use no more than 1.0 gallon of organic HAP solvent per booth to prepare the surface of the booth prior to applying the booth coating.

(g) *Storage requirements.* Each owner or operator of an affected source shall use normally closed containers for storing finishing, gluing, cleaning, and washoff materials.

(h) *Application equipment requirements.* Each owner or operator of an affected source shall not use conventional air spray guns except when all emissions from the finishing application station are routed to a functioning control device.

(i) *Line cleaning.* Each owner or operator of an affected source shall pump or drain all organic HAP solvent used for line cleaning into a normally closed container.

(j) *Gun cleaning.* Each owner or operator of an affected source shall collect all organic HAP solvent used to clean spray guns into a normally closed container.

(k) *Washoff operations.* Each owner or operator of an affected source shall control emissions from washoff operations by:

- (1) Using normally closed tanks for washoff; and
- (2) Minimizing dripping by tilting or rotating the part to drain as much solvent as possible.

(l) *Formulation assessment plan for finishing operations.* Each owner or operator of an affected source shall prepare and maintain with the work practice implementation plan a formulation assessment plan that:

(1) Identifies VHAP from the list presented in Table 5 of this subpart that are being used in finishing operations by the affected source;

(2) Establishes a baseline level of usage by the affected source, for each VHAP identified in paragraph (l)(1) of this section. The baseline usage level shall be the highest annual usage from 1994, 1995, or 1996, for each VHAP identified in paragraph (l)(1) of this section. For formaldehyde, the baseline level of usage shall be based on the amount of free formaldehyde present in the finishing material when it is applied. For styrene, the baseline level of usage shall be an estimate of unreacted styrene, which shall be calculated by multiplying the amount of styrene monomer in the finishing material, when it is applied, by a factor of 0.16. Sources using a control device to reduce emissions may adjust their usage based on the overall control efficiency of the control system, which is determined using the equation in §63.805 (d) or (e).

(3) Tracks the annual usage of each VHAP identified in (l)(1) by the affected source that is present in amounts subject to MSDS reporting as required by OSHA.

(4) If, after November 1998, the annual usage of the VHAP identified in paragraph (l)(1) exceeds its baseline level, then the owner or operator of the affected source shall provide a written notification to the permitting authority that describes the amount of the increase and explains the reasons for exceedance of the baseline level. The following explanations would relieve the owner or operator from further action, unless the affected source is not in compliance with any State regulations or requirements for that VHAP:

(i) The exceedance is no more than 15.0 percent above the baseline level;

(ii) Usage of the VHAP is below the de minimis level presented in Table 5 of this subpart for that VHAP (sources using a control device to reduce emissions may adjust their usage based on the overall control efficiency of the control system, which is determined using the procedures in §63.805 (d) or (e));

(iii) The affected source is in compliance with its State's air toxic regulations or guidelines for the VHAP; or

(iv) The source of the pollutant is a finishing material with a VOC content of no more than 1.0 kg VOC/kg solids (1.0 lb VOC/lb solids), as applied.

(5) If none of the above explanations are the reason for the increase, the owner or operator shall confer with the permitting authority to discuss the reason for the increase and whether there are practical and reasonable technology-based solutions for reducing the usage. The evaluation of whether a technology is reasonable and practical shall be based on cost, quality, and marketability of the product, whether the technology is being used successfully by other wood furniture manufacturing operations, or other criteria mutually agreed upon by the permitting authority and owner or operator. If there are no practical and reasonable solutions, the facility need take no further action. If there are solutions, the owner or operator shall develop a plan to reduce usage of the pollutant to the extent feasible. The plan

shall address the approach to be used to reduce emissions, a timetable for implementing the plan, and a schedule for submitting notification of progress.

(6) If, after November 1998, an affected source uses a VHAP of potential concern listed in table 6 of this subpart for which a baseline level has not been previously established, then the baseline level shall be established as the *de minimis* level provided in that same table for that chemical. The affected source shall track the annual usage of each VHAP of potential concern identified in this paragraph that is present in amounts subject to MSDS reporting as required by OSHA. If usage of the VHAP of potential concern exceeds the *de minimis* level listed in table 6 of this subpart for that chemical, then the affected source shall provide an explanation to the permitting authority that documents the reason for the exceedance of the *de minimis* level. If the explanation is not one of those listed in paragraphs (l)(4)(i) through (l)(4)(iv) of this section, the affected source shall follow the procedures in paragraph (l)(5) of this section.

[60 FR 62936, Dec. 7, 1995, as amended at 63 FR 71380, Dec. 28, 1998; 68 FR 37353, June 23, 2003; 76 FR 72073, Nov. 21, 2011]

### §63.804 Compliance procedures and monitoring requirements.

(a) The owner or operator of an existing affected source subject to §63.802(a)(1) shall comply with those provisions using any of the methods presented in §63.804 (a)(1) through (a)(4).

(1) Calculate the average VHAP content for all finishing materials used at the facility using Equation 1, and maintain a value of E no greater than 1.0;

$$E = \frac{(M_{c1} C_{c1} + M_{c2} C_{c2} + \dots + M_{cn} C_{cn} + S_1 W_1 + S_2 W_2 + \dots + S_n W_n)}{(M_{c1} + M_{c2} + \dots + M_{cn})} \quad \text{Equation 1}$$

(2) Use compliant finishing materials according to the following criteria:

(i) Demonstrate that each stain, sealer, and topcoat has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight by maintaining certified product data sheets for each coating and thinner;

(ii) Demonstrate that each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight by maintaining certified product data sheets for each coating and thinner; and

(iii) Demonstrate that each washcoat, basecoat, and enamel that is formulated at the affected source is formulated using a finishing material containing no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids) and a thinner containing no more than 3.0 percent VHAP by weight.

(3) Use a control system with an overall control efficiency (R) such that the value of  $E_{ac}$  in Equation 2 is no greater than 1.0.

$$R = [(E_{bc} - E_{ac}) / E_{bc}] (100) \quad \text{Equation 2}$$

The value of  $E_{bc}$  in Equation 2 shall be calculated using Equation 1; or

(4) Use any combination of an averaging approach, as described in paragraph (a)(1) of this section, compliant finishing materials, as described in paragraph (a)(2) of this section, and a control system, as described in paragraph (a)(3) of this section.

(b) The owner or operator of an affected source subject to §63.802(a)(2)(i) shall comply with the provisions by using compliant foam adhesives with a VHAP content no greater than 1.8 kg VHAP/kg solids (1.8 lb VHAP/lb solids), as applied.

(c) The owner or operator of an affected source subject to §63.802(a)(2)(ii) shall comply with those provisions by using either of the methods presented in §63.804 (c)(1) and (c)(2).

(1) Use compliant contact adhesives with a VHAP content no greater than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied; or

(2) Use a control system with an overall control efficiency (R) such that the value of  $G_{ac}$  is no greater than 1.0.

$$R = [(G_{bc} - G_{ac}) / G_{bc}] (100) \quad \text{Equation 3}$$

(d) The owner or operator of a new affected source subject to §63.802(b)(1) may comply with those provisions by using any of the following methods:

(1) Calculate the average VHAP content across all finishing materials used at the facility using Equation 1, and maintain a value of E no greater than 0.8;

(2) Use compliant finishing materials according to the following criteria:

(i) Demonstrate that each sealer and topcoat has a VHAP content of no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids), as applied, each stain has a VHAP content of no more than 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight;

(ii) Demonstrate that each washcoat, basecoat, and enamel that is purchased pre-made, that is, it is not formulated onsite by thinning another finishing material, has a VHAP content of no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids), as applied, and each thinner contains no more than 10.0 percent VHAP by weight; and

(iii) Demonstrate that each washcoat, basecoat, and enamel that is formulated onsite is formulated using a finishing material containing no more than 0.8 kg VHAP/kg solids (0.8 lb VHAP/lb solids) and a thinner containing no more than 3.0 percent HAP by weight.

(3) Use a control system with an overall control efficiency (R) such that the value of  $E_{ac}$  in Equation 4 is no greater than 0.8.

$$R = [(E_{bc} - E_{ac}) / E_{bc}] (100) \quad \text{Equation 4}$$

The value of  $E_{bc}$  in Equation 4 shall be calculated using Equation 1; or

(4) Use any combination of an averaging approach, as described in (d)(1), compliant finishing materials, as described in (d)(2), and a control system, as described in (d)(3).

(e) The owner or operator of a new affected source subject to §63.802(b)(2) shall comply with the provisions using either of the following methods:

(1) Use compliant contact adhesives with a VHAP content no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids), as applied; or

(2) Use a control system with an overall control efficiency (R) such that the value of  $G_{ac}$  in Equation 3 is no greater than 0.2.

(f) *Initial compliance.* (1) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(1) or (d)(1) shall submit the results of the averaging calculation (Equation 1) for the first month with the initial compliance status report required by §63.807(b). The first month's calculation shall include data for the entire month in which the compliance date falls. For example, if the source's compliance date is November 21, 1997, the averaging calculation shall include data from November 1, 1997 to November 30, 1997.

(2) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(2) or (d)(2) shall submit an initial compliance status report, as required by §63.807(b), stating that compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as applicable, are being used by the affected source.

(3) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that are complying through the procedures established in §63.804 (a)(2) or (d)(2) and are applying coatings using continuous coaters shall demonstrate initial compliance by:

(i) Submitting an initial compliance status report, as required by §63.807(b), stating that compliant coatings, as determined by the VHAP content of the coating in the reservoir and the VHAP content as calculated from records, and compliant thinners are being used; or

(ii) Submitting an initial compliance status report, as required by §63.807(b), stating that compliant coatings, as determined by the VHAP content of the coating in the reservoir, are being used; the viscosity of the coating in the reservoir is being monitored; and compliant thinners are being used. The affected source shall also submit data that demonstrate that viscosity is an appropriate parameter for demonstrating compliance.

(4) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(3) or (d)(3) shall demonstrate initial compliance by:

(i) Submitting a monitoring plan that identifies each operating parameter to be monitored for the capture device and discusses why each parameter is appropriate for demonstrating continuous compliance;

(ii) Conducting an initial performance test as required under §63.7 using the procedures and test methods listed in §63.7 and §63.805 (c) and (d) or (e);

(iii) Calculating the overall control efficiency (R) following the procedures in §63.805 (d) or (e); and

(iv) Determining those operating conditions critical to determining compliance and establishing one or more operating parameters that will ensure compliance with the standard.

(A) For compliance with a thermal incinerator, minimum combustion temperature shall be the operating parameter.

(B) For compliance with a catalytic incinerator equipped with a fixed catalyst bed, the minimum gas temperature both upstream and downstream of the catalyst bed shall be the operating parameter.

(C) For compliance with a catalytic incinerator equipped with a fluidized catalyst bed, the minimum gas temperature upstream of the catalyst bed and the pressure drop across the catalyst bed shall be the operating parameters.

(D) For compliance with a carbon adsorber, the operating parameters shall be the total regeneration mass stream flow for each regeneration cycle and the carbon bed temperature after each regeneration, or the concentration level of organic compounds exiting the adsorber, unless the owner or operator requests and receives approval from the Administrator to establish other operating parameters.

(E) For compliance with a control device not listed in this section, one or more operating parameter values shall be established using the procedures identified in §63.804(g)(4)(vi).

(v) Owners or operators complying with §63.804(f)(4) shall calculate each site-specific operating parameter value as the arithmetic average of the maximum or minimum operating parameter values, as appropriate, that demonstrate compliance with the standards, during the three test runs required by §63.805(c)(1).

(5) Owners or operators of an affected source subject to the provisions of §63.802 (a)(2) or (b)(2) that comply through the procedures established in §63.804 (b), (c)(1), or (e)(1), shall submit an initial compliance status report, as required by §63.807(b), stating that compliant contact adhesives are being used by the affected source.

(6) Owners or operators of an affected source subject to the provisions of §63.802 (a)(2)(ii) or (b)(2) that comply through the procedures established in §63.804 (c)(2) or (e)(2), shall demonstrate initial compliance by:

(i) Submitting a monitoring plan that identifies each operating parameter to be monitored for the capture device and discusses why each parameter is appropriate for demonstrating continuous compliance;

(ii) Conducting an initial performance test as required under §63.7 using the procedures and test methods listed in §63.7 and §63.805 (c) and (d) or (e);

(iii) Calculating the overall control efficiency (R) following the procedures in §63.805 (d) or (e); and

(iv) Determining those operating conditions critical to determining compliance and establishing one or more operating parameters that will ensure compliance with the standard.

(A) For compliance with a thermal incinerator, minimum combustion temperature shall be the operating parameter.

(B) For compliance with a catalytic incinerator equipped with a fixed catalyst bed, the minimum gas temperature both upstream and downstream of the catalyst shall be the operating parameter.

(C) For compliance with a catalytic incinerator equipped with a fluidized catalyst bed, the minimum gas temperature upstream of the catalyst bed and the pressure drop across the catalyst bed shall be the operating parameters.

(v) Owners or operators complying with §63.804(f)(6) shall calculate each site-specific operating parameter value as the arithmetic average of the maximum or minimum operating values as appropriate, that demonstrate compliance with the standards, during the three test runs required by §63.805(c)(1).

(7) Owners or operators of an affected source subject to the provisions of §63.802 (a)(3) or (b)(3) shall submit an initial compliance status report, as required by §63.807(b), stating that compliant strippable spray booth coatings are being used by the affected source.

(8) Owners or operators of an affected source subject to the work practice standards in §63.803 shall submit an initial compliance status report, as required by §63.807(b), stating that the work practice implementation plan has been developed and procedures have been established for implementing the provisions of the plan.

(g) *Continuous compliance demonstrations.* (1) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(1) or (d)(1) shall demonstrate continuous compliance by submitting the results of the averaging calculation (Equation 1) for each month within that semiannual period and submitting a compliance certification with the semiannual report required by §63.807(c).

(i) The compliance certification shall state that the value of (E), as calculated by Equation 1, is no greater than 1.0 for existing sources or 0.8 for new sources. An affected source is in violation of the standard if E is greater than 1.0 for existing sources or 0.8 for new sources for any month. A violation of the monthly average is a separate violation of the standard for each day of operation during the month, unless the affected source can demonstrate through records that the violation of the monthly average can be attributed to a particular day or days during the period.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(2) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(2) or (d)(2) shall demonstrate continuous compliance by using compliant coatings and thinners, maintaining records that demonstrate the coatings and thinners are compliant, and submitting a compliance certification with the semiannual report required by §63.807(c).

(i) The compliance certification shall state that compliant stains, washcoats, sealers, topcoats, basecoats, enamels, and thinners, as applicable, have been used each day in the semiannual reporting period or should otherwise identify the periods of noncompliance and the reasons for noncompliance. An affected source is in violation of the standard whenever a noncompliant coating, as demonstrated by records or by a sample of the coating, is used.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(3) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that are complying through the procedures established in §63.804 (a)(2) or (d)(2) and are applying coatings using continuous coaters shall demonstrate continuous compliance by following the procedures in paragraph (g)(3) (i) or (ii) of this section.

(i) Using compliant coatings, as determined by the VHAP content of the coating in the reservoir and the VHAP content as calculated from records, using compliant thinners, and submitting a compliance certification with the semiannual report required by §63.807(c).

(A) The compliance certification shall state that compliant coatings have been used each day in the semiannual reporting period, or should otherwise identify the days of noncompliance and the reasons for noncompliance. An affected source is in violation of the standard whenever a noncompliant coating, as determined by records or by a sample of the coating, is used. Use of a noncompliant coating is a separate violation for each day the noncompliant coating is used.

(B) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(ii) Using compliant coatings, as determined by the VHAP content of the coating in the reservoir, using compliant thinners, maintaining a viscosity of the coating in the reservoir that is no less than the viscosity of the initial coating by monitoring the viscosity with a viscosity meter or by testing the viscosity of the initial coating and retesting the coating in the reservoir each time solvent is added, maintaining records of solvent additions, and submitting a compliance certification with the semiannual report required by §63.807(c).

(A) The compliance certification shall state that compliant coatings, as determined by the VHAP content of the coating in the reservoir, have been used each day in the semiannual reporting period. Additionally, the certification shall state that the viscosity of the coating in the reservoir has not been less than the viscosity of the initial coating, that is, the coating that is initially mixed and placed in the reservoir, for any day in the semiannual reporting period.

(B) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(C) An affected source is in violation of the standard when a sample of the as-applied coating exceeds the applicable limit established in §63.804 (a)(2) or (d)(2), as determined using EPA Method 311, or the viscosity of the coating in the reservoir is less than the viscosity of the initial coating.

(4) Owners or operators of an affected source subject to the provisions of §63.802 (a)(1) or (b)(1) that comply through the procedures established in §63.804 (a)(3) or (d)(3) shall demonstrate continuous compliance by installing, calibrating, maintaining, and operating the appropriate monitoring equipment according to manufacturer's specifications. The owner or operator shall also submit the excess emissions and continuous monitoring system performance report and summary report required by §63.807(d) and §63.10(e) of subpart A.

(i) Where a capture/control device is used, a device to monitor each site-specific operating parameter established in accordance with §63.804(f)(6)(i) is required.

(ii) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(A) Where a thermal incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(B) Where a catalytic incinerator equipped with a fixed catalyst bed is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(C) Where a catalytic incinerator equipped with a fluidized catalyst bed is used, a temperature monitoring device shall be installed in the gas stream immediately before the bed. In addition, a pressure monitoring device shall be installed to determine the pressure drop across the catalyst bed. The pressure drop shall be measured monthly at a constant flow rate.

(iii) Where a carbon adsorber is used one of the following is required:

(A) An integrating stream flow monitoring device having an accuracy of  $\pm 10$  percent, capable of recording the total regeneration stream mass flow for each regeneration cycle; and a carbon bed temperature monitoring device, having an accuracy of  $\pm 1$  percent of the temperature being monitored or

$\pm 0.5$  °C, whichever is greater, and capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle;

(B) An organic monitoring device, equipped with a continuous recorder, to indicate the concentration level of organic compounds exiting the carbon adsorber; or

(C) Any other monitoring device that has been approved by the Administrator in accordance with §63.804(f)(4)(iv)(D).

(iv) Owners or operators of an affected source shall not operate the capture or control device at a daily average value greater than or less than (as appropriate) the operating parameter values. The daily average value shall be calculated as the average of all values for a monitored parameter recorded during the operating day.

(v) Owners or operators of an affected source that are complying through the use of a catalytic incinerator equipped with a fluidized catalyst bed shall maintain a constant pressure drop, measured monthly, across the catalyst bed.

(vi) An owner or operator who uses a control device not listed in §63.804(f)(4) shall submit, for the Administrator's approval, a description of the device, test data verifying performance, and appropriate site-specific operating parameters that will be monitored to demonstrate continuous compliance with the standard.

(5) Owners or operators of an affected source subject to the provisions of §63.802 (a)(2) (i) or (ii) or (b)(2) that comply through the procedures established in §63.804 (b), (c)(1), or (e)(1), shall submit a compliance certification with the semiannual report required by §63.807(c).

(i) The compliance certification shall state that compliant contact and/or foam adhesives have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant contact and/or foam adhesives were used. Each day a noncompliant contact or foam adhesive is used is a single violation of the standard.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(6) Owners or operators of an affected source subject to the provisions of §63.802 (a)(2)(ii) or (b)(2) that comply through the procedures established in §63.804 (c)(2) or (e)(2), shall demonstrate continuous compliance by installing, calibrating, maintaining, and operating the appropriate monitoring equipment according to the manufacturer's specifications. The owner or operator shall also submit the excess emissions and continuous monitoring system performance report and summary report required by §63.807(d) and §63.10(e) of subpart A of this part.

(i) Where a capture/control device is used, a device to monitor each site-specific operating parameter established in accordance with §63.804(f)(6)(i) is required.

(ii) Where an incinerator is used, a temperature monitoring device equipped with a continuous recorder is required.

(A) Where a thermal incinerator is used, a temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs.

(B) Where a catalytic incinerator equipped with a fixed catalyst bed is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

(C) Where a catalytic incinerator equipped with a fluidized catalyst bed is used, a temperature monitoring device shall be installed in the gas stream immediately before the bed. In addition, a pressure monitoring device shall be installed to measure the pressure drop across the catalyst bed. The pressure drop shall be measured monthly at a constant flow rate.

(iii) Where a carbon adsorber is used one of the following is required:

(A) An integrating stream flow monitoring device having an accuracy of  $\pm 10$  percent, capable of recording the total regeneration stream mass flow for each regeneration cycle; and a carbon bed temperature monitoring device, having an accuracy of  $\pm 1$  percent of the temperature being monitored or  $\pm 0.5$  °C, whichever is greater, and capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle;

(B) An organic monitoring device, equipped with a continuous recorder, to indicate the concentration level of organic compounds exiting the carbon adsorber; or

(C) Any other monitoring device that has been approved by the Administrator in accordance with §63.804(f)(4)(iv)(D).

(iv) Owners or operators of an affected source shall not operate the capture or control device at a daily average value greater than or less than (as appropriate) the operating parameter values. The daily average value shall be calculated as the average of all values for a monitored parameter recorded during the operating day.

(v) Owners or operators of an affected source that are complying through the use of a catalytic incinerator equipped with a fluidized catalyst bed shall maintain a constant pressure drop, measured monthly, across the catalyst bed.

(vi) An owner or operator using a control device not listed in this section shall submit to the Administrator a description of the device, test data verifying the performance of the device, and appropriate operating parameter values that will be monitored to demonstrate continuous compliance with the standard. Compliance using this device is subject to the Administrator's approval.

(7) Owners or operators of an affected source subject to the provisions of §63.802 (a)(3) or (b)(3) shall submit a compliance certification with the semiannual report required by §63.807(c).

(i) The compliance certification shall state that compliant strippable spray booth coatings have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant materials were used. Each day a noncompliant strippable booth coating is used is a single violation of the standard.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(8) Owners or operators of an affected source subject to the work practice standards in §63.803 shall submit a compliance certification with the semiannual report required by §63.807(c).

(i) The compliance certification shall state that the work practice implementation plan is being followed, or should otherwise identify the provisions of the plan that have not been implemented and each day the provisions were not implemented. During any period of time that an owner or operator is required

to implement the provisions of the plan, each failure to implement an obligation under the plan during any particular day is a violation.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

(9) *Continuous compliance requirements.* You must demonstrate continuous compliance with the emissions standards and operating limits by using the performance test methods and procedures in §63.805 for each affected source.

(i) *General requirements.* (A) You must monitor and collect data, and provide a site specific monitoring plan as required by §§63.804, 63.806 and 63.807.

(B) Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments), you must operate the monitoring system and collect data at all required intervals at all times the affected source is operating and periods of malfunction. Any period for which data collection is required and the operation of the CEMS is not otherwise exempt and for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(C) You may not use data recorded during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The owner or operator must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

(ii) [Reserved]

(h) The owner or operator of an existing or new affected source subject to §63.802(a)(4) or (b)(4) shall comply with those provisions by using either of the methods presented in §63.804(h)(1) and (2) if complying with §63.802(a)(4)(i) or (b)(4)(i) or by using the method presented in §63.804(h)(3) if complying with §63.802(a)(4)(ii) or (b)(4)(ii).

(1) Calculate total formaldehyde emissions from all finishing materials and contact adhesives used at the facility using Equation 5 and maintain a value of  $F_{total}$  no more than 400 pounds per rolling 12 month period.

$$F_{total} = (C_{f1} V_{c1} + C_{f2} V_{c2} + * * * + C_{fn} V_{cn} + G_{f1} V_{g1} + G_{f2} V_{g2} + * * * + G_{fn} V_{gn}) \text{ Equation 5}$$

(2) Use a control system with an overall control efficiency (R) such that the calculated value of  $F_{total}$  in Equation 6 is no more than 400 pounds per rolling 12 month period.

$$F_{total} = (C_{f1} V_{c1} + C_{f2} V_{c2} + * * * + C_{fn} V_{cn} + G_{f1} V_{g1} + G_{f2} V_{g2} + * * * + G_{fn} V_{gn}) * (1-R) \text{ Equation 6}$$

(3) Demonstrate compliance by use of coatings and contact adhesives only if they are low-formaldehyde coatings and contact adhesives maintaining a certified product data sheet for each coating

and contact adhesive used, as required by §63.806(b)(1), and submitting a compliance certification with the semiannual report required by §63.807(c).

(i) The compliance certification shall state that low-formaldehyde coatings and contact adhesives, as applicable, have been used each day in the semiannual reporting period or should otherwise identify the periods of noncompliance and the reasons for noncompliance. An affected source is in violation of the standard whenever a coating or contact adhesive that is not low-formaldehyde, as demonstrated by records or by a sample of the coating or contact adhesive, is used. Use of a noncompliant coating or contact adhesive is a separate violation for each day the noncompliant coating or contact adhesive is used.

(ii) The compliance certification shall be signed by a responsible official of the company that owns or operates the affected source.

[60 FR 62936, Dec. 7, 1995, as amended at 76 FR 72073, Nov. 21, 2011]

### **§63.805 Performance test methods.**

(a)(1) The EPA Method 311 of appendix A of part 63 shall be used in conjunction with formulation data to determine the VHAP content of the liquid coating. Formulation data shall be used to identify VHAP present in the coating. The EPA Method 311 shall then be used to quantify those VHAP identified through formulation data. The EPA Method 311 shall not be used to quantify HAP such as styrene and formaldehyde that are emitted during the cure. The EPA Method 24 (40 CFR part 60, appendix A) shall be used to determine the solids content by weight and the density of coatings. If it is demonstrated to the satisfaction of the Administrator that a coating does not release VOC or HAP byproducts during the cure, for example, all VOC and HAP present in the coating is solvent, then batch formulation information shall be accepted. The owner or operator of an affected source may request approval from the Administrator to use an alternative method for determining the VHAP content of the coating. In the event of any inconsistency between the EPA Method 24 or Method 311 test data and a facility's formulation data, that is, if the EPA Method 24/311 value is higher, the EPA Method 24/311 test shall govern unless after consultation, a regulated source could demonstrate to the satisfaction of the enforcement agency that the formulation data were correct. Sampling procedures shall follow the guidelines presented in "Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A," EPA-340/1-91-010. (Docket No. A-93-10, Item No. IV-A-1).

(2) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance of the affected source for the period being tested. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(b) Owners or operators demonstrating compliance in accordance with §63.804 (f)(4) or (f)(6) and §63.804 (g)(4) or (g)(6), or complying with any of the other emission limits of §63.802 by operating a capture or control device shall determine the overall control efficiency of the control system (R) as the product of the capture and control device efficiency, using the test methods cited in §63.805(c) and the procedures in §63.805 (d) or (e).

(c) When an initial compliance demonstration is required by §63.804 (f)(4) or (f)(6) of this subpart, the procedures in paragraphs (c)(1) through (c)(6) of this section shall be used in determining initial compliance with the provisions of this subpart.

(1) The EPA Method 18 (40 CFR part 60, appendix A) shall be used to determine the HAP concentration of gaseous air streams. The test shall consist of three separate runs, each lasting a minimum of 30 minutes.

(2) The EPA Method 1 or 1A (40 CFR part 60, appendix A) shall be used for sample and velocity traverses.

(3) The EPA Method 2, 2A, 2C, or 2D (40 CFR part 60, appendix A) shall be used to measure velocity and volumetric flow rates.

(4) The EPA Method 3 (40 CFR part 60, appendix A) shall be used to analyze the exhaust gases.

(5) The EPA Method 4 (40 CFR part 60, appendix A) shall be used to measure the moisture in the stack gas.

(6) The EPA Methods 2, 2A, 2C, 2D, 3, and 4 shall be performed, as applicable, at least twice during each test period.

(d) Each owner or operator of an affected source demonstrating compliance in accordance with §63.804 (f)(4) or (f)(6) shall perform a gaseous emission test using the following procedures:

(1) Construct the overall HAP emission reduction system so that all volumetric flow rates and total HAP emissions can be accurately determined by the applicable test methods specified in §63.805(c) (1) through (6);

(2) Determine capture efficiency from the affected emission point(s) by capturing, venting, and measuring all HAP emissions from the affected emission point(s). During a performance test, the owner or operator shall isolate affected emission point(s) located in an area with other nonaffected gaseous emission sources from all other gaseous emission point(s) by any of the following methods:

(i) Build a temporary total enclosure (see §63.801) around the affected emission point(s); or

(ii) Use the building that houses the process as the enclosure (see §63.801);

(iii) Use any alternative protocol and test method provided they meet either the requirements of the data quality objective (DQO) approach or the lower confidence level (LCL) approach (see §63.801);

(iv) Shut down all nonaffected HAP emission point(s) and continue to exhaust fugitive emissions from the affected emission point(s) through any building ventilation system and other room exhausts such as drying ovens. All exhaust air must be vented through stacks suitable for testing; or

(v) Use another methodology approved by the Administrator provided it complies with the EPA criteria for acceptance under part 63, appendix A, Method 301.

(3) Operate the control device with all affected emission points that will subsequently be delivered to the control device connected and operating at maximum production rate;

(4) Determine the efficiency (F) of the control device using the following equation:

$$F = \frac{\sum_{i=1}^n Q_{di} C_{di} - \sum_{j=1}^p Q_{dj} C_{dj}}{\sum_{i=1}^n Q_{di} C_{di}} \quad (\text{Equation 5})$$

(5) Determine the efficiency (N) of the capture system using the following equation:

$$N = \frac{\sum_{i=1}^n Q_{di} C_{di}}{\sum_{i=1}^n Q_{di} C_{di} + \sum_{k=1}^p Q_{fk} C_{fk}} \quad (\text{Equation 6})$$

(6) For each affected source complying with §63.802(a)(1) in accordance with §63.804(a)(3), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of E<sub>ac</sub> in Equation 2 is no greater than 1.0.

(7) For each new affected source complying with §63.802(b)(1) in accordance with §63.804(d)(3), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of E<sub>ac</sub> in Equation 4 is no greater than 0.8.

(8) For each affected source complying with §63.802(a)(2)(ii) in accordance with §63.804(c)(2), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of G<sub>ac</sub> in Equation 3 is no greater than 1.0.

(9) For each new affected source complying with §63.802(b)(2) in accordance with §63.804(e)(2), compliance is demonstrated if the product of (F×N)(100) yields a value (R) such that the value of G<sub>ac</sub> in Equation 3 is no greater than 0.2.

(e) An alternative method to the compliance method in §63.805(d) is the installation of a permanent total enclosure around the affected emission point(s). A permanent total enclosure presents prima facie evidence that all HAP emissions from the affected emission point(s) are directed to the control device. Each affected source that complies using a permanent total enclosure shall:

(1) Demonstrate that the total enclosure meets the requirements in paragraphs (e)(1) (i) through (iv). The owner or operator of an enclosure that does not meet these requirements may apply to the Administrator for approval of the enclosure as a total enclosure on a case-by-case basis. The enclosure shall be considered a total enclosure if it is demonstrated to the satisfaction of the Administrator that all HAP emissions from the affected emission point(s) are contained and vented to the control device. The requirements for automatic approval are as follows:

(i) The total area of all natural draft openings shall not exceed 5 percent of the total surface area of the total enclosure's walls, floor, and ceiling;

(ii) All sources of emissions within the enclosure shall be a minimum of four equivalent diameters away from each natural draft opening;

(iii) The average inward face velocity (FV) across all natural draft openings shall be a minimum of 3,600 meters per hour as determined by the following procedures:

(A) All forced makeup air ducts and all exhaust ducts are constructed so that the volumetric flow rate in each can be accurately determined by the test methods specified in §63.805 (c)(2) and (3). Volumetric flow rates shall be calculated without the adjustment normally made for moisture content; and

(B) Determine FV by the following equation:

$$FV = \frac{\sum_{j=1}^n Q_{out j} - \sum_{i=1}^p Q_{in i}}{\sum_{k=1}^q A_k} \quad (\text{Equation 7})$$

(iv) All access doors and windows whose areas are not included as natural draft openings and are not included in the calculation of FV shall be closed during routine operation of the process.

(2) Determine the control device efficiency using Equation (5), and the test methods and procedures specified in §63.805 (c)(1) through (6).

(3) For each affected source complying with §63.802(a)(1) in accordance with §63.804(a)(3), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N=1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F×N)(100) yields a value (R) such that the value of  $E_{ac}$  in Equation 2 is no greater than 1.0.

(4) For each new affected source complying with §63.802(b)(1) in accordance with §63.804(d)(3), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N = 1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F×N)(100) yields a value (R) such that the value of  $E_{ac}$  in Equation 4 is no greater than 0.8.

(5) For each affected source complying with §63.802(a)(2)(ii) in accordance with §63.804(c)(2), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N=1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F×N)(100) yields a value (R) such that the value of  $G_{ac}$  in Equation 3 is no greater than 1.0.

(6) For each new affected source complying with §63.802(b)(2) in accordance with §63.804(e)(2), compliance is demonstrated if:

(i) The installation of a permanent total enclosure is demonstrated (N=1);

(ii) The value of F is determined from Equation (5); and

(iii) The product of (F×N)(100) yields a value (R) such that the value of  $G_{ac}$  in Equation 3 is no greater than 0.2.

[60 FR 62936, Dec. 7, 1995, as amended at 76 FR 72073, Nov. 21, 2011]

**§63.806 Recordkeeping requirements.**

(a) The owner or operator of an affected source subject to this subpart shall fulfill all recordkeeping requirements of §63.10 of subpart A, according to the applicability criteria in §63.800(d) of this subpart.

(b) The owner or operator of an affected source subject to the emission limits in §63.802 of this subpart shall maintain records of the following:

(1) A certified product data sheet for each finishing material, thinner, contact adhesive, and strippable spray booth coating subject to the emission limits in §63.802; and

(2) The VHAP content, in kg VHAP/kg solids (lb VHAP/lb solids), as applied, of each finishing material and contact adhesive subject to the emission limits in §63.802; and

(3) The VOC content, in kg VOC/kg solids (lb VOC/lb solids), as applied, of each strippable booth coating subject to the emission limits in §63.802 (a)(3) or (b)(3).

(4) The formaldehyde content, in lb/gal, as applied, of each finishing material and contact adhesive subject to the emission limits in §63.802(a)(4) or (b)(4) and chooses to comply with the 400 lb/yr limits on formaldehyde in §63.802(a)(4) (i) or (b)(4)(i).

(c) The owner or operator of an affected source following the compliance method in §63.804 (a)(1) or (d)(1) shall maintain copies of the averaging calculation for each month following the compliance date, as well as the data on the quantity of coatings and thinners used that is necessary to support the calculation of E in Equation 1.

(d) The owner or operator of an affected source following the compliance procedures of §63.804 (f)(3)(ii) and (g)(3)(ii) shall maintain the records required by §63.806(b) as well as records of the following:

(1) Solvent and coating additions to the continuous coater reservoir;

(2) Viscosity measurements; and

(3) Data demonstrating that viscosity is an appropriate parameter for demonstrating compliance.

(e) The owner or operator of an affected source subject to the work practice standards in §63.803 of this subpart shall maintain onsite the work practice implementation plan and all records associated with fulfilling the requirements of that plan, including, but not limited to:

(1) Records demonstrating that the operator training program required by §63.803(b) is in place;

(2) Records collected in accordance with the inspection and maintenance plan required by §63.803(c);

(3) Records associated with the cleaning solvent accounting system required by §63.803(d);

(4) [Reserved]

(5) Records associated with the formulation assessment plan required by §63.803(l); and

(6) Copies of documentation such as logs developed to demonstrate that the other provisions of the work practice implementation plan are followed.

(f) The owner or operator of an affected source following the compliance method of §63.804 (f)(4) or (g)(4) shall maintain copies of the calculations demonstrating that the overall control efficiency (R) of the control system results in the value of  $E_{ac}$  required by Equations 2 or 4, records of the operating parameter values, and copies of the semiannual compliance reports required by §63.807(d).

(g) The owner or operator of an affected source following the compliance method of §63.804 (f)(6) or (g)(6), shall maintain copies of the calculations demonstrating that the overall control efficiency (R) of the control system results in the applicable value of  $G_{ac}$  calculated using Equation 3, records of the operating parameter values, and copies of the semiannual compliance reports required by §63.807(d).

(h) The owner or operator of an affected source subject to the emission limits in §63.802 and following the compliance provisions of §63.804(f) (1), (2), (3), (5), (7) and (8) and §63.804(g) (1), (2), (3), (5), (7), and (8) shall maintain records of the compliance certifications submitted in accordance with §63.807(c) for each semiannual period following the compliance date.

(i) The owner or operator of an affected source shall maintain records of all other information submitted with the compliance status report required by §63.9(h) and §63.807(b) and the semiannual reports required by §63.807(c).

(j) The owner or operator of an affected source shall maintain all records in accordance with the requirements of §63.10(b)(1).

(k) The owner or operator of an affected source subject to this subpart shall maintain records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control equipment and monitoring equipment. The owner or operator shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with §63.802(c), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[60 FR 62936, Dec. 7, 1995, as amended at 76 FR 72074, Nov. 21, 2011]

### **§63.807 Reporting requirements.**

(a) The owner or operator of an affected source subject to this subpart shall fulfill all reporting requirements of §63.7 through §63.10 of subpart A (General Provisions) according to the applicability criteria in §63.800(d) of this subpart.

(b) The owner or operator of an affected source demonstrating compliance in accordance with §63.804(f) (1), (2), (3), (5), (7) and (8) shall submit the compliance status report required by §63.9(h) of subpart A (General Provisions) no later than 60 days after the compliance date. The report shall include the information required by §63.804(f) (1), (2), (3), (5), (7), and (8) of this subpart.

(c) The owner or operator of an affected source demonstrating compliance in accordance with §63.804(g)(1), (2), (3), (5), (7), (8), (h)(1), and (h)(3) shall submit a report covering the previous 6 months of wood furniture manufacturing operations.

(1) The first report shall be submitted 30 calendar days after the end of the first 6-month period following the compliance date.

(2) Subsequent reports shall be submitted 30 calendar days after the end of each 6-month period following the first report.

(3) The semiannual reports shall include the information required by §63.804(g) (1), (2), (3), (5), (7), (8), (h)(1), and (h)(3), a statement of whether the affected source was in compliance or noncompliance, and, if the affected source was in noncompliance, the measures taken to bring the affected source into compliance. If there was a malfunction during the reporting period, the report shall also include the number, duration and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.802(c), including actions taken to correct a malfunction.

(4) The frequency of the reports required by paragraph (c) of this section shall not be reduced from semiannually regardless of the history of the owner's or operator's compliance status.

(d) The owner or operator of an affected source demonstrating compliance in accordance with §63.804(g)(4), (6), and (h)(2) of this subpart shall submit the excess emissions and continuous monitoring system performance report and summary report required by §63.10(e) of subpart A. The report shall include the monitored operating parameter values required by §63.804(g) (4) and (6). If the source experiences excess emissions, the report shall be submitted quarterly for at least 1 year after the excess emissions occur and until a request to reduce reporting frequency is approved, as indicated in §63.10(e)(3)(C). If no excess emissions occur, the report shall be submitted semiannually.

(e) The owner or operator of an affected source required to provide a written notification under §63.803(1)(4) shall include in the notification one or more statements that explains the reasons for the usage increase. The notification shall be submitted no later than 30 calendar days after the end of the annual period in which the usage increase occurred.

[60 FR 62936, Dec. 7, 1995, as amended at 76 FR 72074, Nov. 21, 2011]

#### **§63.808 Implementation and enforcement.**

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of alternatives to the requirements in §§63.800, 63.802, and 63.803(a)(1), (b), (c) introductory text, and (d) through (l).

(2) Approval of alternatives to the monitoring and compliance requirements in §§63.804(f)(4)(iv)(D) and (E), 63.804(g)(4)(iii)(C), 63.804(g)(4)(vi), and 63.804(g)(6)(vi).

(3) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart, as well as approval of any alternatives to the specific test methods under §§63.805(a), 63.805(d)(2)(v), and 63.805(e)(1).

(4) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(5) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37354, June 23, 2003]

**§§63.809-63.819 [Reserved]**

**Table 1 to Subpart JJ of Part 63—General Provisions Applicability to Subpart JJ**

Reference	Applies to subpart JJ	Comment
63.1(a)	Yes	
63.1(b)(1)	No	Subpart JJ specifies applicability.
63.1(b)(2)	Yes	
63.1(b)(3)	Yes	
63.1(c)(1)	No	Subpart JJ specifies applicability.
63.1(c)(2)	No	Area sources are not subject to subpart JJ.
63.1(c)(4)	Yes	
63.1(c)(5)	Yes	
63.1(e)	Yes	
63.2	Yes	Additional terms are defined in 63.801(a) of subpart JJ. When overlap between subparts A and JJ occurs, subpart JJ takes precedence.
63.3	Yes	Other units used in subpart JJ are defined in 63.801(b).
63.4	Yes	
63.5	Yes	
63.6(a)	Yes	
63.6(b)(1)	Yes	
63.6(b)(2)	Yes	
63.6(b)(3)	Yes	
63.6(b)(4)	No	May apply when standards are proposed under Section 112(f) of the CAA.
63.6(b)(5)	Yes	
63.6(b)(7)	Yes	
63.6(c)(1)	Yes	

Reference	Applies to subpart JJ	Comment
63.6(c)(2)	No	
63.6(c)(5)	Yes	
63.6(e)(1)(i)	No	See §63.802(c) for general duty requirement.
63.6(e)(1)(ii)	No.	
63.6(e)(1)(iii)	Yes.	
63.6(e)(2)	No	Section reserved.
63.6(e)(3)	No.	
63.6(f)(1)	No	Affected sources complying through the procedures specified in 63.804 (a)(1), (a)(2), (b), (c)(1), (d)(1), (d)(2), (e)(1), and (e)(2) are subject to the emission standards at all times, including periods of startup, shutdown, and malfunction.
63.6(f)(2)	Yes	
63.6(f)(3)	Yes	
63.6(g)	Yes	
63.6(h)	No	
63.6 (i)(1)-(i)(3)	Yes	
63.6(i)(4)(i)	Yes	
63.6(i)(4)(ii)	No	
63.6 (i)(5)-(i)(14)	Yes	
63.6(i)(16)	Yes	
63.6(j)	Yes	
63.7(a)-(d)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.7(e)(1)	No	See §63.805(a)(1).
63.7(e)(2)-(e)(4)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.8(a)-(b)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.8(c)(1)(i)	No.	
63.8(c)(1)(ii)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.8(c)(1)(iii)	No.	
63.8(c)(2)-(d)(2)	Yes	Applies only to affected sources using a control device to comply with the rule.

<b>Reference</b>	<b>Applies to subpart JJ</b>	<b>Comment</b>
63.8(d)(3)	Yes, except for last sentence	Applies only to affected sources using a control device to comply with the rule.
63.8(e)-(g)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.9(a)	Yes	
63.9(b)	Yes	Existing sources are required to submit initial notification report within 270 days of the effective date.
63.9(c)	Yes	
63.9(d)	Yes	
63.9(e)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.9(f)	No	
63.9(g)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.9(h)	Yes	63.9(h)(2)(ii) applies only to affected sources using a control device to comply with the rule.
63.9(i)	Yes	
63.9(j)	Yes	
63.10(a)	Yes	
63.10(b)(1)	Yes	
63.10(b)(2)(i)	No.	
63.10(b)(2)(ii)	No	See §63.806(k) for recordkeeping of occurrence and duration of malfunctions and recordkeeping of actions taken during malfunctions.
63.10(b)(2)(iii)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(b)(2)(iv)-(b)(2)(v)	No.	
63.10(b)(2)(vi)-(b)(2)(xiv)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(b)(3)	Yes	
63.10(c)(1)-(9)	Yes.	
63.10(c)(10)-(11)	No	See §63.806(k) for recordkeeping of malfunctions.
63.10(c)(12)-(14)	Yes.	
63.10(c)(15)	No.	
63.10(d)(1)	Yes	

Reference	Applies to subpart JJ	Comment
63.10(d)(2)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(d)(3)	No	
63.10(d)(4)	Yes	
63.10(d)(5)	No	See §63.807(c)(3) for reporting of malfunctions.
63.10(e)	Yes	Applies only to affected sources using a control device to comply with the rule.
63.10(f)	Yes	
63.11	No	
63.12-63.15	Yes	

[60 FR 62936, Dec. 7, 1995, as amended at 76 FR 72074, Nov. 21, 2011]

**Table 2 to Subpart JJ of Part 63—List of Volatile Hazardous Air Pollutants**

Chemical name	CAS No.
Acetaldehyde	75070
Acetamide	60355
Acetonitrile	75058
Acetophenone	98862
2-Acetylaminofluorine	53963
Acrolein	107028
Acrylamide	79061
Acrylic acid	79107
Acrylonitrile	107131
Allyl chloride	107051
4-Aminobiphenyl	92671
Aniline	62533
o-Anisidine	90040
Benzene	71432
Benzidine	92875
Benzotrichloride	98077
Benzyl chloride	100447
Biphenyl	92524
Bis (2-ethylhexyl) phthalate (DEHP)	117817

<b>Chemical name</b>	<b>CAS No.</b>
Bis (chloromethyl) ether	542881
Bromoform	75252
1,3-Butadiene	106990
Carbon disulfide	75150
Carbon tetrachloride	56235
Carbonyl sulfide	463581
Catechol	120809
Chloroacetic acid	79118
2-Chloroacetophenone	532274
Chlorobenzene	108907
Chloroform	67663
Chloromethyl methyl ether	107302
Chloroprene	126998
Cresols (isomers and mixture)	1319773
o-Cresol	95487
m-Cresol	108394
p-Cresol	106445
Cumene	98828
2,4-D (2,4-Dichlorophenoxyacetic acid, including salts and esters)	94757
DDE (1,1-Dichloro-2,2-bis(p-chlorophenyl)ethylene)	72559
Diazomethane	334883
Dibenzofuran	132649
1,2-Dibromo-3-chloropropane	96128
Dibutylphthalate	84742
1,4-Dichlorobenzene	106467
3,3'-Dichlorobenzidine	91941
Dichloroethyl ether (Bis(2-chloroethyl)ether)	111444
1,3-Dichloropropene	542756
Diethanolamine	111422
N,N-Dimethylaniline	121697
Diethyl sulfate	64675
3,3'-Dimethoxybenzidine	119904
4-Dimethylaminoazobenzene	60117

<b>Chemical name</b>	<b>CAS No.</b>
3,3'-Dimethylbenzidine	119937
Dimethylcarbamoyl chloride	79447
N,N-Dimethylformamide	68122
1,1-Dimethylhydrazine	57147
Dimethyl phthalate	131113
Dimethyl sulfate	77781
4,6-Dinitro-o-cresol, and salts	534521
2,4-Dinitrophenol	51285
2,4-Dinitrotoluene	121142
1,4-Dioxane (1,4-Diethyleneoxide)	123911
1,2-Diphenylhydrazine	122667
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106898
1,2-Epoxybutane	106887
Ethyl acrylate	140885
Ethylbenzene	100414
Ethyl carbamate (Urethane)	51796
Ethyl chloride (Chloroethane)	75003
Ethylene dibromide (Dibromoethane)	106934
Ethylene dichloride (1,2-Dichloroethane)	107062
Ethylene glycol	107211
Ethylene oxide	75218
Ethylenethiourea	96457
Ethylidene dichloride (1,1-Dichloroethane)	75343
Formaldehyde	50000
Glycolethers <sup>a</sup>	
Hexachlorobenzene	118741
Hexachloro-1,3-butadiene	87683
Hexachloroethane	67721
Hexamethylene-1,6-diisocyanate	822060
Hexamethylphosphoramide	680319
Hexane	110543
Hydrazine	302012
Hydroquinone	123319

<b>Chemical name</b>	<b>CAS No.</b>
Isophorone	78591
Maleic anhydride	108316
Methanol	67561
Methyl bromide (Bromomethane)	74839
Methyl chloride (Chloromethane)	74873
Methyl chloroform (1,1,1-Trichloroethane)	71556
Methyl ethyl ketone (2-Butanone)	78933
Methylhydrazine	60344
Methyl iodide (Iodomethane)	74884
Methyl isobutyl ketone (Hexone)	108101
Methyl isocyanate	624839
Methyl methacrylate	80626
Methyl tert-butyl ether	1634044
4,4'-Methylenebis (2-chloroaniline)	101144
Methylene chloride (Dichloromethane)	75092
4,4'-Methylenediphenyl diisocyanate (MDI)	101688
4,4'-Methylenedianiline	101779
Naphthalene	91203
Nitrobenzene	98953
4-Nitrobiphenyl	92933
4-Nitrophenol	100027
2-Nitropropane	79469
N-Nitroso-N-methylurea	684935
N-Nitrosodimethylamine	62759
N-Nitrosomorpholine	59892
Phenol	108952
p-Phenylenediamine	106503
Phosgene	75445
Phthalic anhydride	85449
Polychlorinated biphenyls (Aroclors)	1336363
Polycyclic Organic Matter <sup>b</sup>	
1,3-Propane sultone	1120714
beta-Propiolactone	57578

<b>Chemical name</b>	<b>CAS No.</b>
Propionaldehyde	123386
Propoxur (Baygon)	114261
Propylene dichloride (1,2-Dichloropropane)	78875
Propylene oxide	75569
1,2-Propylenimine (2-Methyl aziridine)	75558
Quinone	106514
Styrene	100425
Styrene oxide	96093
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
1,1,2,2-Tetrachloroethane	79345
Tetrachloroethylene (Perchloroethylene)	127184
Toluene	108883
2,4-Toluenediamine	95807
Toluene-2,4-diisocyanate	584849
o-Toluidine	95534
1,2,4-Trichlorobenzene	120821
1,1,2-Trichloroethane	79005
Trichloroethylene	79016
2,4,5-Trichlorophenol	95954
2,4,6-Trichlorophenol	88062
Triethylamine	121448
Trifluralin	1582098
2,2,4-Trimethylpentane	540841
Vinyl acetate	108054
Vinyl bromide	593602
Vinyl chloride	75014
Vinylidene chloride (1,1-Dichloroethylene)	75354
Xylenes (isomers and mixture)	1330207
o-Xylene	95476
m-Xylene	108383
p-Xylene	106423

<sup>a</sup>Includes mono- and di-ethers of ethylene glycol, diethylene glycols and triethylene glycol; R-(OCH<sub>2</sub>CH<sub>2</sub>) RR-OR where:

n = 1, 2, or 3,

R = alkyl or aryl groups

R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH<sub>2</sub>CH<sub>2</sub>)<sub>n</sub>-OH. Polymers are excluded from the glycol category.

<sup>b</sup>Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.

[63 FR 71381, Dec. 28, 1998]

**Table 3 to Subpart JJ of Part 63—Summary of Emission Limits**

Emission point	Existing source	New source
Finishing Operations:		
(a) Achieve a weighted average VHAP content across all coatings (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied)	<sup>a</sup> 1.0	<sup>a</sup> 0.8
(b) Use compliant finishing materials (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied):		
—stains	<sup>a</sup> 1.0	<sup>a</sup> 1.0
—washcoats	<sup>a b</sup> 1.0	<sup>a b</sup> 0.8
—sealers	<sup>a</sup> 1.0	<sup>a</sup> 0.8
—topcoats	<sup>a</sup> 1.0	<sup>a</sup> 0.8
—basecoats	<sup>a b</sup> 1.0	<sup>a b</sup> 0.8
—enamels	<sup>a b</sup> 1.0	<sup>a b</sup> 0.8
—thinners (maximum percent VHAP allowable); or	10.0	10.0
(c) As an alternative, use control device; or	<sup>c</sup> 1.0	<sup>c</sup> 0.8
(d) Use any combination of (a), (b), and (c)	1.0	0.8
Cleaning Operations:		
Strippable spray booth material (maximum VOC content, kg VOC/kg solids [lb VOC/lb solids])	0.8	0.8
Contact Adhesives:		
(a) Use compliant contact adhesives (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied) based on following criteria:		
i. For aerosol adhesives, and for contact adhesives applied to nonporous substrates	<sup>d</sup> NA	<sup>d</sup> NA
ii. For foam adhesives used in products that meet flammability requirements	1.8	0.2
iii. For all other contact adhesives (including foam adhesives used in products that do not meet flammability requirements); or	1.0	0.2

<b>Emission point</b>	<b>Existing source</b>	<b>New source</b>
(b) Use a control device	<sup>e</sup> 1.0	<sup>e</sup> 0.2
All Finishing Operations and Contact Adhesives:		
(a) Achieve total free formaldehyde emissions across all finishing operations and contact adhesives, lb per rolling 12 month period, as applied	400	400
(b) Use coatings and contact adhesives only if they are low-formaldehyde coatings and contact adhesives	<sup>f</sup> 1.0	<sup>f</sup> 1.0

<sup>a</sup>The limits refer to the VHAP content of the coating, as applied.

<sup>b</sup>Washcoats, basecoats, and enamels must comply with the limits presented in this table if they are purchased premade, that is, if they are not formulated onsite by thinning other finishing materials. If they are formulated onsite, they must be formulated using compliant finishing materials, i.e., those that meet the limits specified in this table, and thinners containing no more than 3.0 percent VHAP by weight.

<sup>c</sup>The control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.8 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.

<sup>d</sup>There is no limit on the VHAP content of these adhesives.

<sup>e</sup>The control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.2 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.

<sup>f</sup>The limits refer to the formaldehyde content by weight of the coating or contact adhesive, as specified on certified product data sheets.

[60 FR 62936, Dec. 7, 1995, as amended at 62 FR 30260, June 3, 1997; 76 FR 72073, Nov. 21, 2011]

**Table 4 to Subpart JJ of Part 63—Pollutants Excluded From Use in Cleaning and Washoff Solvents**

<b>Chemical name</b>	<b>CAS No.</b>
4-Aminobiphenyl	92671
Styrene oxide	96093
Diethyl sulfate	64675
N-Nitrosomorpholine	59892
Dimethyl formamide	68122
Hexamethylphosphoramide	680319
Acetamide	60355
4,4'-Methylenedianiline	101779
o-Anisidine	90040
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
Beryllium salts	

<b>Chemical name</b>	<b>CAS No.</b>
Benzidine	92875
N-Nitroso-N-methylurea	684935
Bis (chloromethyl) ether	542881
Dimethyl carbamoyl chloride	79447
Chromium compounds (hexavalent)	
1,2-Propylenimine (2-Methyl aziridine)	75558
Arsenic and inorganic arsenic compounds	99999904
Hydrazine	302012
1,1-Dimethyl hydrazine	57147
Beryllium compounds	7440417
1,2-Dibromo-3-chloropropane	96128
N-Nitrosodimethylamine	62759
Cadmium compounds	
Benzo (a) pyrene	50328
Polychlorinated biphenyls (Aroclors)	1336363
Heptachlor	76448
3,3'-Dimethyl benzidine	119937
Nickel subsulfide	12035722
Acrylamide	79061
Hexachlorobenzene	118741
Chlordane	57749
1,3-Propane sultone	1120714
1,3-Butadiene	106990
Nickel refinery dust	
2-Acetylaminoflourine	53963
3,3'-Dichlorobenzidine	53963
Lindane (hexachlorcyclohexane, gamma)	58899
2,4-Toluene diamine	95807
Dichloroethyl ether (Bis(2-chloroethyl) ether)	111444
1,2-Diphenylhydrazine	122667
Toxaphene (chlorinated camphene)	8001352
2,4-Dinitrotoluene	121142
3,3'-Dimethoxybenzidine	119904

<b>Chemical name</b>	<b>CAS No.</b>
Formaldehyde	50000
4,4'-Methylene bis (2-chloroaniline)	101144
Acrylonitrile	107131
Ethylene dibromide (1,2-Dibromoethane)	106934
DDE (1,1-p-chlorophenyl 1-2 dichloroethylene)	72559
Chlorobenzilate	510156
Dichlorvos	62737
Vinyl chloride	75014
Coke Oven Emissions	
Ethylene oxide	75218
Ethylene thiourea	96457
Vinyl bromide (bromoethene)	593602
Selenium sulfide (mono and di)	7488564
Chloroform	67663
Pentachlorophenol	87865
Ethyl carbamate (Urethane)	51796
Ethylene dichloride (1,2-Dichloroethane)	107062
Propylene dichloride (1,2-Dichloropropane)	78875
Carbon tetrachloride	56235
Benzene	71432
Methyl hydrazine	60344
Ethyl acrylate	140885
Propylene oxide	75569
Aniline	62533
1,4-Dichlorobenzene(p)	106467
2,4,6-Trichlorophenol	88062
Bis (2-ethylhexyl) phthalate (DEHP)	117817
o-Toluidine	95534
Propoxur	114261
1,4-Dioxane (1,4-Diethyleneoxide)	123911
Acetaldehyde	75070
Bromoform	75252
Captan	133062

<b>Chemical name</b>	<b>CAS No.</b>
Epichlorohydrin	106898
Methylene chloride (Dichloromethane)	75092
Dibenz (ah) anthracene	53703
Chrysene	218019
Dimethyl aminoazobenzene	60117
Benzo (a) anthracene	56553
Benzo (b) fluoranthene	205992
Antimony trioxide	1309644
2-Nitropropane	79469
1,3-Dichloropropene	542756
7, 12-Dimethylbenz(a) anthracene	57976
Benz(c) acridine	225514
Indeno(1,2,3-cd)pyrene	193395
1,2:7,8-Dibenzopyrene	189559

[63 FR 71382, Dec. 28, 1998]

**Table 5 to Subpart JJ of Part 63—List of VHAP of Potential Concern Identified by Industry**

<b>CAS No.</b>	<b>Chemical name</b>	<b>EPA de minimis, tons/yr</b>
68122	Dimethyl formamide	1.0
50000	Formaldehyde	0.2
75092	Methylene chloride	4.0
79469	2-Nitropropane	1.0
78591	Isophorone	0.7
1000425	Styrene monomer	1.0
108952	Phenol	0.1
111422	Dimethanolamine	5.0
109864	2-Methoxyethanol	10.0
111159	2-Ethoxyethyl acetate	10.0

[63 FR 71382, Dec. 28, 1998]

**Table 6 to Subpart JJ of Part 63—VHAP of Potential Concern**

CAS No.	Chemical name	EPA de minimis, tons/yr*
92671	4-Aminobiphenyl	1.0
96093	Styrene oxide	1.0
64675	Diethyl sulfate	1.0
59892	N-Nitrosomorpholine	1.0
68122	Dimethyl formamide	1.0
680319	Hexamethylphosphoramide	0.01
60355	Acetamide	1.0
101779	4,4'-Methylenedianiline	1.0
90040	o-Anisidine	1.0
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.00000006
92875	Benzidine	0.00003
684935	N-Nitroso-N-methylurea	0.00002
542881	Bis(chloromethyl) ether	0.00003
79447	Dimethyl carbamoyl chloride	0.002
75558	1,2-Propylenimine (2-Methyl aziridine)	0.0003
57147	1,1-Dimethyl hydrazine	0.0008
96128	1,2-Dibromo-3-chloropropane	0.001
62759	N-Nitrosodimethylamine	0.0001
50328	Benzo (a) pyrene	0.001
1336363	Polychlorinated biphenyls (Aroclors)	0.0009
76448	Heptachlor	0.002
119937	3,3'-Dimethyl benzidine	0.001
79061	Acrylamide	0.002
118741	Hexachlorobenzene	0.004
57749	Chlordane	0.005
1120714	1,3-Propane sultone	0.003
106990	1,3-Butadiene	0.007
53963	2-Acetylaminoflourine	0.0005
91941	3,3'-Dichlorobenzidine	0.02
58899	Lindane (hexachlorocyclohexane, gamma)	0.005
95807	2,4-Toluene diamine	0.002
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)	0.006

<b>CAS No.</b>	<b>Chemical name</b>	<b>EPA de minimis, tons/yr*</b>
122667	1,2—Diphenylhydrazine	0.009
8001352	Toxaphene (chlorinated camphene)	0.006
121142	2,4-Dinitrotoluene	0.002
119904	3,3'-Dimethoxybenzidine	0.01
50000	Formaldehyde	0.2
101144	4,4'-Methylene bis(2-chloroaniline)	0.02
107131	Acrylonitrile	0.03
106934	Ethylene dibromide(1,2-Dibromoethane)	0.01
72559	DDE (1,1-p-chlorophenyl 1-2 dichloroethylene)	0.01
510156	Chlorobenzilate	0.04
62737	Dichlorvos	0.02
75014	Vinyl chloride	0.02
75218	Ethylene oxide	0.09
96457	Ethylene thiourea	0.06
593602	Vinyl bromide (bromoethene)	0.06
67663	Chloroform	0.09
87865	Pentachlorophenol	0.07
51796	Ethyl carbamate (Urethane)	0.08
107062	Ethylene dichloride (1,2-Dichloroethane)	0.08
78875	Propylene dichloride (1,2-Dichloropropane)	0.1
56235	Carbon tetrachloride	0.1
71432	Benzene	0.2
140885	Ethyl acrylate	0.1
75569	Propylene oxide	0.5
62533	Aniline	0.1
106467	1,4-Dichlorobenzene(p)	0.3
88062	2,4,6-Trichlorophenol	0.6
117817	Bis (2-ethylhexyl) phthalate (DEHP)	0.5
95534	o-Toluidine	0.4
114261	Propoxur	2.0
79016	Trichloroethylene	1.0
123911	1,4-Dioxane (1,4-Diethyleneoxide)	0.6
75070	Acetaldehyde	0.9

<b>CAS No.</b>	<b>Chemical name</b>	<b>EPA de minimis, tons/yr*</b>
75252	Bromoform	2.0
133062	Captan	2.0
106898	Epichlorohydrin	2.0
75092	Methylene chloride (Dichloromethane)	4.0
127184	Tetrachloroethylene (Perchloroethylene)	4.0
53703	Dibenz (ah) anthracene	0.01
218019	Chrysene	0.01
60117	Dimethyl aminoazobenzene	1.0
56553	Benzo (a) anthracene	0.01
205992	Benzo (b) fluoranthene	0.01
79469	2-Nitropropane	1.0
542756	1,3-Dichloropropene	1.0
57976	7,12-Dimethylbenz (a) anthracene	0.01
225514	Benz(c)acridine	0.01
193395	Indeno(1,2,3-cd)pyrene	0.01
189559	1,2:7,8-Dibenzopyrene	0.01
79345	1,1,2,2-Tetrachloroethane	0.03
91225	Quinoline	0.0006
75354	Vinylidene chloride (1,1-Dichloroethylene)	0.04
87683	Hexachlorobutadiene	0.09
82688	Pentachloronitrobenzene (Quintobenzene)	0.03
78591	Isophorone	0.7
79005	1,1,2-Trichloroethane	0.1
74873	Methyl chloride (Chloromethane)	1.0
67721	Hexachloroethane	0.5
1582098	Trifluralin	0.9
1319773	Cresols/Cresylic acid (isomers and mixture)	1.0
108394	m-Cresol	1.0
75343	Ethylidene dichloride (1,1-Dichloroethane)	1.0
95487	o-Cresol	1.0
106445	p-Cresol	1.0
74884	Methyl iodide (Iodomethane)	1.0
100425	Styrene	1.0

<b>CAS No.</b>	<b>Chemical name</b>	<b>EPA de minimis, tons/yr*</b>
107051	Allyl chloride	1.0
334883	Diazomethane	1.0
95954	2,4,5—Trichlorophenol	1.0
133904	Chloramben	1.0
106887	1,2—Epoxybutane	1.0
108054	Vinyl acetate	1.0
126998	Chloroprene	1.0
123319	Hydroquinone	1.0
92933	4-Nitrobiphenyl	1.0
56382	Parathion	0.1
13463393	Nickel Carbonyl	0.1
60344	Methyl hydrazine	0.006
151564	Ethylene imine	0.0003
77781	Dimethyl sulfate	0.1
107302	Chloromethyl methyl ether	0.1
57578	beta-Propiolactone	0.1
100447	Benzyl chloride	0.04
98077	Benzotrichloride	0.0006
107028	Acrolein	0.04
584849	2,4—Toluene diisocyanate	0.1
75741	Tetramethyl lead	0.01
78002	Tetraethyl lead	0.01
12108133	Methylcyclopentadienyl manganese	0.1
624839	Methyl isocyanate	0.1
77474	Hexachlorocyclopentadiene	0.1
62207765	Fluomine	0.1
10210681	Cobalt carbonyl	0.1
79118	Chloroacetic acid	0.1
534521	4,6-Dinitro-o-cresol, and salts	0.1
101688	Methylene diphenyl diisocyanate	0.1
108952	Phenol	0.1
62384	Mercury, (acetato-o) phenyl	0.01
98862	Acetophenone	1.0

CAS No.	Chemical name	EPA de minimis, tons/yr*
108316	Maleic anhydride	1.0
532274	2-Chloroacetophenone	0.06
51285	2,4-Dinitrophenol	1.0
109864	2-Methoxy ethanol	10.0
98953	Nitrobenzene	1.0
74839	Methyl bromide (Bromomethane)	10.0
75150	Carbon disulfide	1.0
121697	N,N-Dimethylaniline	1.0
106514	Quinone	5.0
123386	Propionaldehyde	5.0
120809	Catechol	5.0
85449	Phthalic anhydride	5.0
463581	Carbonyl sulfide	5.0
132649	Dibenzofurans	5.0
100027	4-Nitrophenol	5.0
540841	2,2,4-Trimethylpentane	5.0
111422	Diethanolamine	5.0
822060	Hexamethylene-1,6-diisocyanate	5.0
	Glycol ethers <sup>a</sup>	5.0
	Polycyclic organic matter <sup>b</sup>	0.01

\*These values are based on the de minimis levels provided in the proposed rulemaking pursuant to section 112(g) of the Act using a 70-year lifetime exposure duration for all VHAP. Default assumptions and the de minimis values based on inhalation reference doses (RfC) are not changed by this adjustment.

<sup>a</sup>Except for ethylene glycol butyl ether, ethylene glycol ethyl ether (2-ethoxy ethanol), ethylene glycol hexyl ether, ethylene glycol methyl ether (2-methoxyethanol), ethylene glycol phenyl ether, ethylene glycol propyl ether, ethylene glycol mono-2-ethylhexyl ether, diethylene glycol butyl ether, diethylene glycol ethyl ether, diethylene glycol methyl ether, diethylene glycol hexyl ether, diethylene glycol phenyl ether, diethylene glycol propyl ether, triethylene glycol butyl ether, triethylene glycol ethyl ether, triethylene glycol methyl ether, triethylene glycol propyl ether, ethylene glycol butyl ether acetate, ethylene glycol ethyl ether acetate, and diethylene glycol ethyl ether acetate.

<sup>b</sup>Except for benzo(b)fluoranthene, benzo(a)anthracene, benzo(a)pyrene, 7,12-dimethylbenz(a)anthracene, benz(c)acridine, chrysene, dibenz(ah) anthracene, 1,2:7,8-dibenzopyrene, indeno(1,2,3-cd)pyrene, but including dioxins and furans.

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

Technical Support Document (TSD) for a Part 70 Transitioning to a  
Minor Source Operating Permit (MSOP)

**Source Description and Location**

**Source Name:** Bremtown Fine Custom Cabinetry, Inc.  
**Source Location:** 712 North Bowen and 1456 State Road 331 N., Bremen, Indiana 46506  
**County:** Marshall  
**SIC Code:** 2434 (Wood Kitchen Cabinets)  
**Operation Permit No.:** M099-34075-00047  
**Permit Reviewer:** Dominic Williams

On January 14, 2014, the Office of Air Quality (OAQ) received an application from Bremtown Fine Custom Cabinetry, Inc. related to the transition of a Part 70 to a MSOP.

**Source Definition**

This source consists of the following plants:

- (a) Bremtown Fine Custom Cabinetry, Inc. is located at 712 North Bowen Avenue, Bremen, Indiana 46506, Plant ID: 099-00047; and
- (b) Bremtown Fine Custom Cabinetry, Inc. is located at 1456 State Route 331 North, Bremen, Indiana 46506, Plant ID: 099-00047.

In order to consider both plants as one single source, all three of the following criteria must be met:

- (1) The plants must have common ownership/control;
- (2) The plants must have the same SIC code; and
- (3) The plants must be located on contiguous or adjacent properties.

These plants are located on adjacent properties, have the same SIC codes of 2434 and are under common control; therefore they are considered one (1) source, as defined by 326 IAC 2-7-1(22). This determination was initially made under Administrative Amendment No. 099-13773-00047, issued on February 19, 2001.

**Existing Approvals**

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

- (a) Second Renewal No. T099-27049-00047, issued on October 9, 2009; and
- (b) Administrative Amendment No. T099-29602-00047, issued on October 13, 2010.

Due to this application, the source is transitioning from a Part 70 to a MSOP.

### County Attainment Status

The source is located in Marshall County.

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

<sup>1</sup>Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

- (a) **Ozone Standards**  
Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) 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<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Marshall County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM<sub>2.5</sub>**  
Marshall County has been classified as attainment for PM<sub>2.5</sub>. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM<sub>2.5</sub> emissions. These rules became effective on July 15, 2008. On May 4, 2011, the air pollution control board issued an emergency rule establishing the direct PM<sub>2.5</sub> significant level at ten (10) tons per year. This rule became effective June 28, 2011. Therefore, direct PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) **Other Criteria Pollutants**  
Marshall 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

- (a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.
- (b) 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.

### Background and Description of Permitted Emission Units

Plant 1 consisting of the following:

- (a) One (1) woodworking operation, identified as Plant 1 - Wood Shop, constructed in 1979, with a maximum capacity of 490 pounds of wood per hour, exhausting to stack Plant 1 - Baghouse X.

- (b) One (1) surface coating booth, identified as Plant 1 - Hand Wipe Application, constructed in 1979, with a maximum capacity of 0.0117 pounds of coatings and solvents per hour, using wipe application, using no controls, and exhausting indoors.
- (c) One (1) surface coating booth, identified as Plant 1 - Sealer Booth, constructed in 1979, with a maximum capacity of 3.857 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 1 - Sealer BoothX.
- (d) One (1) surface coating booth, identified as Plant 1 - Topcoat Booth, constructed in 1979, with a maximum capacity of 2.0899 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 1 - Topcoat BoothX.
- (e) One (1) surface coating booth, identified as Plant 1 - Cup Gun, constructed in 1979, with a maximum capacity of 0.0135 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting indoors.

Plant 2 consisting of the following:

- (f) One (1) surface coating booth, identified as Plant 2 - Wipe Stain Area, constructed in 2001, with a maximum capacity of 1.9731 pounds of coatings and solvents per hour, using wipe application, using no controls, and exhausting indoors.
- (g) One (1) surface coating booth, identified as Plant 2 - Primer/Sealer Booth1 (PB2), constructed in 2001, with a maximum capacity of 2.1119 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Primer/Sealer Booth 1 (PB2)X.
- (h) One (1) surface coating booth, identified as Plant 2 - Primer/Sealer Booth 2 (PB3), constructed in 2001, with a maximum capacity of 2.0424 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Primer/Sealer Booth 2 (PB3)X.
- (i) One (1) surface coating booth, identified as Plant 2 - Primer/Sealer Booth 3 (PB4), constructed in 2001, with a maximum capacity of 2.0078 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Primer/Sealer Booth 3 (PB4)X.
- (j) One (1) surface coating booth, identified as Plant 2 - Rework Booth (PB5), constructed in 2001, with a maximum capacity of 1.7132 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Rework Booth (PB5)X.
- (k) One (1) surface coating booth, identified as Plant 2 - Topcoat Booth (PB6), constructed in 2001, with a maximum capacity of 2.6553 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to stack Plant 2 - Topcoat Booth (PB6)X.
- (l) One (1) surface coating booth, identified as Plant 2 - Sample Booth (Booth #4), constructed in 1994, with a maximum capacity of 3.0188 pounds of coatings and solvents per hour, using high volume low pressure (HVLP) application, using a fabric filter for particulate control, and exhausting to Plant 2 - Sample Booth (Booth #4)X.

All of the surface coating booths at Plant 1 and Plant 2 are considered affected an affected source under 40 CFR 63, Subpart JJ, National Emissions Standards for Wood Furniture Manufacturing Operations

Insignificant Activities:

- (m) One (1) wood-fired incinerator, identified as Incinerator, constructed in 1979, with a maximum capacity of 90 pounds of clean scrap wood per hour, exhausting to stack IncineratorX.

Note: The Permittee will only combust clean wood in the wood-fired incinerator. Clean wood consists of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials. Clean wood does not include wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board).

- (n) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].
- (o) On-site fire and emergency response training approved by the department.
- (p) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour: Nine (9) air make-up units with a total maximum heat input capacity of 4.6 MMBtu per hour.

**“Integral Part of the Process” Determination**

In October 1993 a Final Order Granting Summary Judgment was signed by Administrative Law Judge (“ALJ”) Garrettson resolving an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 92-A-J-833) related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls are necessary for the facility to produce its normal product and are integral to the normal operation of the facility, and therefore, potential emissions should be calculated after controls. Based on this ruling, potential particulate matter emissions from the woodworking operation were calculated after consideration of the baghouse controls for purposes of determining operating permit level and 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) applicability. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD), potential particulate matter emissions from the woodworking operation were calculated before consideration of the baghouse controls.

**Enforcement Issues**

There are no pending enforcement actions related to this source.

Three (3) surface coating booths were previously constructed at this source, but were not previously added to the permit. Plant 1 - Hand Wipe Application and Plant 1 - Cup Gun were constructed in 1979. Plant 2 - Wipe Stain Area was constructed in 2001. The total uncontrolled PTE of these units combined does not exceed the 326 IAC 2-1.1-3 (Exemptions) thresholds. Therefore, no construction approval was necessary to construct these units.

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – MSOP**

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

Pollutant	Potential To Emit (tons/year)
PM	12.78
PM10 <sup>(1)</sup>	12.80
PM2.5	12.64
SO <sub>2</sub>	0.09
NO <sub>x</sub>	3.53
VOC	47.19
CO	3.56
GHGs as CO <sub>2</sub> e	3,062
Total HAPs	4.13
Highest Single HAP	2.94 (Xylene)

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10) and particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers (PM2.5), not particulate matter (PM), are each considered as a "regulated air pollutant".

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of VOC is less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is not subject to the provisions of 326 IAC 2-7.

As indicated in the Technical Support Document (TSD) for the First Renewal No. T099-16244-00047, issued October 13, 2004, the source was originally a major source of HAPs with a potential to emit any single HAP or combination of HAPs greater than 10 and 25 tons per year, respectively, however the source removed a number of units which brought the potential to emit HAPs down to less than 10 and 25 tons per year. Eventhough this source has the potential to emit HAPs less than 10 and 25 tons per year, it is still considered a "major source" under 40 CFR Part 63 (NESHAP), Subpart JJ. The facilities at this source are still subject to the MACT standards under 40 CFR Part 63 (NESHAP), Subpart JJ, because the source was considered a major source for HAPs on the "first compliance date" of NESHAP Subpart JJ (December 7, 1998) and are required to comply permanently with the MACT standard (i.e., "Once in Always In"). These determinations are based on EPA's "Once in Always In Policy" (OIAI Policy).

For additional information on EPA's "Once in Always In Policy" (OIAI Policy), please refer to the EPA memo entitled "Potential to Emit for MACT Standards - Guidance on Timing Issues", May 16, 1995. This memo can be found at the following website:  
<http://www.epa.gov/region07/air/title5/t5memos/pteguid.pdf>

- (c) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

**PTE of the Entire Source After Issuance of the MSOP**

The table below summarizes the potential to emit of the entire source after issuance of this MSOP, reflecting all limits, of the emission units.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of MSOP (tons/year)									
	PM	PM10*	PM2.5*	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
Plant 1 - Wood Shop***	5.14	5.14	5.14	-	-	-	-	-	-	-
Plant 1 - Hand Wipe Application	0	0	0	-	-	0.03	-	-	6.3E-3	6.0E-3 Xylenes
Plant 1 - Sealer Booth	0.07	0.07	0.07	-	-	7.32	-	-	0.13	0.13 Methanol
Plant 1 - Topcoat Booth	0.01	0.01	0.01	-	-	4.33	-	-	0.91	0.67 Xylenes
Plant 1 - Cup Gun	3.3E-4	3.3E-4	3.3E-4	-	-	0.03	-	-	0	-
Plant 2 - Wipe Stain Area	0.0	0.0	0.0	-	-	2.11	-	-	0.01	0.01 Xylenes
Plant 2 - Primer/Sealer Booth 1 (PB2)	0.04	0.04	0.04	-	-	6.26	-	-	0.46	0.34 Xylenes
Plant 2 - Primer/Sealer Booth 2 (PB3)	0.04	0.04	0.04	-	-	5.96	-	-	0.46	0.34 Xylenes
Plant 2 - Primer/Sealer Booth 3 (PB4)	0.04	0.04	0.04	-	-	5.81	-	-	0.46	0.34 Xylenes
Plant 2 - Rework Booth (PB5)	0.05	0.05	0.05	-	-	3.74	-	-	0.45	0.34 Xylenes
Plant 2 - Topcoat Booth (PB6)	0.07	0.07	0.07	-	-	5.75	-	-	1.10	0.89 Xylenes
Plant 2 - Sample Booth (Booth #4)	8.7E-4	8.7E-4	8.7E-4	-	-	5.62	-	-	2.4E-5	1.2E-5 Formaldehyde
Natural Gas Combustion	0.04	0.15	0.15	0.01	1.98	0.11	1.66	2,393	0.04	0.04 Hexane
Incinerator	1.26	1.19	1.03	0.08	1.55	0.12	1.89	670	0.11	0.06 HCl
Paved Roads (Fugitive)	0.01	2.4E-3	5.8E-4	-	-	-	-	-	-	-
Unpaved Roads (Fugitive)	2.2E-3	5.6E-4	5.6E-5	-	-	-	-	-	-	-
<b>Total PTE of Entire Source</b>	<b>6.77</b>	<b>6.80</b>	<b>6.64</b>	<b>0.09</b>	<b>3.53</b>	<b>47.19</b>	<b>3.56</b>	<b>3,062</b>	<b>4.13</b>	<b>2.94 Xylenes</b>
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA

\*Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a regulated air pollutant".  
 \*\*The 100,000 CO<sub>2</sub>e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.  
 \*\*\*Woodworking particulate emissions are after integral controls.  
 \*\*\*\*Paint booth particulate emissions are after dry filter controls.

PSD Minor Status

The uncontrolled/unlimited potential to emit PM, PM10, and PM2.5 from the entire source is greater than 250 tons per year.

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable, the PM, PM10, and PM2.5 emissions after control shall be less than the following emission limitations:

Emission Unit Description	Control Device	PM Emission Limit (lbs/hour)	PM10 Emission Limit (lbs/hour)	PM2.5 Emission Limit (lbs/hour)
Woodworking Equipment, Plant 1	Baghouse	1.60	1.60	1.60

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 total potential to emit of PM, PM10, and PM2.5 to less than 250 tons per year, each, and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

**Federal Rule Applicability Determination**

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standards (NSPS) for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971, 40 CFR 60, Subpart D, (326 IAC 12), are not included in the permit, because the nine (9) natural gas-fired units are air make-up units, not boilers, and each has a maximum heat input capacity of less than two hundred fifty (250) million British thermal units per hour.
- (b) The requirements of the New Source Performance Standards (NSPS) for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, 40 CFR 60, Subpart Da, Standards of Performance (326 IAC 12), are not included in the permit, because the nine (9) natural gas-fired units are air make-up units, and each is not an electric utility steam generating unit.
- (c) The requirements of the New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Db (326 IAC 12), are not included in the permit, because the nine (9) natural gas-fired units are air make-up units, not boilers, and each has a maximum heat input capacity of less than one-hundred (100) million British thermal units per hour.
- (d) The requirements of the New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit, because the nine (9) natural gas-fired units are air make-up units, not boilers, and each has a maximum heat input capacity of less than ten (10) million British thermal units per hour.
- (e) The requirements of the New Source Performance Standards (NSPS) for Incinerators, 40 CFR 60, Subpart E (326 IAC 12), are not included in the permit, because the wood waste-fired incinerator has a charging rate less than fifty (50) tons per day and does not burn solid waste as described in §60.51(b). The incinerator combusts waste wood obtained from other industrial processes (consisting of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials).
- (f) The requirements of the New Source Performance Standards (NSPS) for Large Municipal Waste Combustors for Which Construction is Commenced after December 20, 1989 and on or before September 20, 1994, 40 CFR 60, Subpart Ea (326 IAC 12), are not included in the permit, since the wood waste-fired incinerator does not combust municipal waste as described in §60.51a. The incinerator combusts waste wood obtained from other industrial processes (consisting of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials).
- (g) The requirements of the New Source Performance Standards (NSPS) for Large Municipal Waste Combustors for Which Construction is Commenced after September 20, 1994, or for Which Modification or Reconstruction is commenced after June 19, 1996, 40 CFR 60, Subpart Eb (326 IAC 12), are not included in the permit, since the wood waste-fired incinerator does not combust

- municipal waste as described in §60.51b. The incinerator combusts waste wood obtained from other industrial processes (consisting of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials).
- (h) The requirements of the New Source Performance Standards (NSPS) for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced after January 20, 1996, 40 CFR 60, Subpart Ec (326 IAC 12), are not included in the permit, since the wood waste-fired incinerator does not combust "medical/infectious waste" as described in §60.51c. The incinerator combusts waste wood obtained from other industrial processes (consisting of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials).
  - (i) The requirements of the New Source Performance Standards (NSPS) for Surface Coating of Metal Furniture, 40 CFR 60, Subpart EE (326 IAC 12), are not included in the permit, since this source does not coat metal furniture as described in §60.310(a).
  - (j) The requirements of the New Source Performance Standards (NSPS) for Automobile and Light Duty Truck Surface Coating Operations, 40 CFR 60, Subpart MM (326 IAC 12), are not included in the permit, since this source does not coat automobiles or light duty trucks as described in §60.390(a).
  - (k) The requirements of the New Source Performance Standards (NSPS) for Pressure Sensitive Tape and Label Surface Coating Operations, 40 CFR 60, Subpart RR (326 IAC 12), are not included in the permit, since this source does not coat sensitive tape or label materials as described in §60.440(a).
  - (l) The requirements of the New Source Performance Standards (NSPS) for Industrial Surface Coating: Large Appliances, 40 CFR 60.450, Subpart SS (326 IAC 12), are not included in the permit, since this source does not coat large appliances as described in §60.450(a).
  - (m) The requirements of the New Source Performance Standards (NSPS) for Metal Coil Surface Coating, 40 CFR 60.460, Subpart TT (326 IAC 12), are not included in the permit, since this source does not coat metal coils as described in §60.460(a).
  - (n) The requirements of the New Source Performance Standards (NSPS) for the Beverage Can Surface Coating Industry, 40 CFR 60.490, Subpart WW (326 IAC 12), are not included in the permit, since this source does not coat beverage cans as described in §60.490(a).
  - (o) The requirements of the New Source Performance Standards (NSPS) for Magnetic Tape Coating Facilities, 40 CFR 60.710, Subpart SSS (326 IAC 12), are not included in the permit, since this source does not coat magnetic tape as defined in §60.711(a)(13).
  - (p) The requirements of the New Source Performance Standards (NSPS) for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines, 40 CFR 60.720, Subpart TTT (326 IAC 12), are not included in the permit, since this source does not coat plastic parts for business machines as defined in §60.721(a).
  - (q) The requirements of the New Source Performance Standards (NSPS) for New Residential Wood Heaters, 40 CFR 60, Subpart AAA (326 IAC 12), are not included in the permit for the wood waste-fired incinerator, since it does not meet the definition of a wood heater pursuant to 40 CFR 60.531 and the source is not a residence.
  - (r) The requirements of the New Source Performance Standards (NSPS) for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001, 40 CFR 60, Subpart AAAA (326 IAC 12), are not included in the permit, since the wood waste-fired incinerator does not combust municipal solid waste as defined in §60.1465. The incinerator combusts waste wood

obtained from other industrial processes (consisting of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials).

- (s) The requirements of New Source Performance Standard (NSPS) for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001, 40 CFR 60, Subpart CCCC (326 IAC 12), are not included in the permit, since the wood waste-fired incinerator does not burn "commercial or industrial waste" as defined in §60.2265. The incinerator combusts waste wood obtained from other industrial processes (consisting of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials).
- (t) The requirements of the New Source Performance Standards (NSPS) for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004 or for Which Modification or Reconstruction is commenced on or After June 16, 2006, 40 CFR 60, Subpart EEEE (326 IAC 12), are not included in the permit, since the wood waste-fired incinerator does not burn municipal solid waste or institutional waste as defined in §60.2977. The incinerator combusts waste wood obtained from other industrial processes (consisting of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials).
- (u) The requirements of the New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ (326 IAC 12), are not included in the permit, because the nine (9) natural gas-fired units are air make-up units, not reciprocating internal combustion engines.
- (v) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

#### National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (w) This source is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Wood Furniture Manufacturing Operations, 40 CFR 63, Subpart JJ (326 IAC 20-14), because this facility engages in the manufacture of wood furniture or wood furniture components and the source was considered a major source for HAPs on the "first compliance date" of NESHAP Subpart JJ (December 7, 1998).

Eventhough this source now has the potential to emit HAPs less than 10 and 25 tons per year, it is still considered a "major source" under 40 CFR Part 63 (NESHAP), Subpart JJ. The facilities at this source are still subject to the MACT standards under 40 CFR Part 63 (NESHAP), Subpart JJ, because the source was considered a major source for HAPs on the "first compliance date" of NESHAP Subpart JJ (December 7, 1998) and are required to comply permanently with the MACT standard (i.e., "Once in Always In"). These determinations are based on EPA's "Once in Always In Policy" (OIAI Policy).

For additional information on EPA's "Once in Always In Policy" (OIAI Policy), please refer to the EPA memo entitled "Potential to Emit for MACT Standards - Guidance on Timing Issues", May 16, 1995. This memo can be found at the following website:

<http://www.epa.gov/region07/air/title5/t5memos/pteguid.pdf>

The eleven (11) surface coating booths, identified as Plant 1 - Hand Wipe Application, Plant 1 - Sealer Booth, Plant 1 - Topcoat Booth, Plant 1 - Cup Gun, Plant 2 - Wipe Stain Area, Plant 2 - Primer/Sealer Booth 1 (PB2), Plant 2 - Primer/Sealer Booth 2 (PB3), Plant 2 - Primer/Sealer Booth 3 (PB4), Plant 2 - Rework Booth (PB5), Plant 2 - Topcoat Booth (PB6), and Plant 2 - Sample Booth (Booth #4) are subject to the following requirements of 40 CFR Part 63, Subpart JJ:

- (1) 40 CFR 63.800
- (2) 40 CFR 63.801

- (3) 40 CFR 63.802(a)
- (4) 40 CFR 63.803
- (5) 40 CFR 63.804(a)(1), (2), (b), (c)(1), (f)(1), (2), (3), (5), (7), (8), (g)(1), (2), (3), (5), (7), and (8)
- (6) 40 CFR 63.805(a), (b), (c), and (d)
- (7) 40 CFR 63.806(a), (b), (c), (d), (e), (h), (i), and (j)
- (8) 40 CFR 63.807(a), (b), (c), and (e)
- (9) 40 CFR 63.808(a), (b), (c)(1), (3), (4), and (5)
- (10) Table 1 to 40 CFR Part 63, Subpart JJ (applicable portions)
- (11) Table 2 to 40 CFR Part 63, Subpart JJ (applicable portions)
- (12) Table 3 to 40 CFR Part 63, Subpart JJ (applicable portions)
- (13) Table 4 to 40 CFR Part 63, Subpart JJ (applicable portions)
- (14) Table 5 to 40 CFR Part 63, Subpart JJ (applicable portions)
- (15) Table 6 to 40 CFR Part 63, Subpart JJ (applicable portions)

The provisions of 40 CFR 63 Subpart A - General Provisions which are incorporated as 326 IAC 20-1, apply to the source except when otherwise specified in 40 CFR 63, Subpart JJ.

- (x) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): for Hazardous Waste Combustors, 40 CFR 63, Subpart EEE (326 IAC 20-28), since the incinerator does not burn hazardous waste as defined in §63.1201. The incinerator combusts waste wood obtained from other industrial processes (consisting of uncoated, unpainted, and untreated wood scrap, sawdust, chips, millings or shavings, and natural growth wood materials).
- (y) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Plywood and Composite Wood Products, 40 CFR 63, Subpart DDDD, are not included in the permit, since this source does not perform plywood or composite wood products manufacturing and it is not a major source of HAPs. This source consists of woodworking operations and wood surface coating operations.
- (z) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Automobiles and Light-Duty Trucks, 40 CFR 63, Subpart IIII (326 IAC 20-85) are not included in the permit, since this source does not coat new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks and is not located at a plant site that is a major source of HAPs as defined in 40 CFR Part 63, Subpart A, §63.2.
- (aa) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Metal Cans, 40 CFR 63, Subpart KKKK (326 IAC 20-86) are not included in the permit, since this source does not coat metal cans and is not located at a plant site that is a major source of HAPs as defined in 40 CFR Part 63, Subpart A, §63.2.
- (bb) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20-80, 40 CFR Part 63, Subpart MMMM (Surface Coating of Miscellaneous Metal Parts and Products) are not included in the permit, since this source does not coat miscellaneous metal parts and is not a major source of HAPs as defined in 40 CFR Part 63, Subpart A, §63.2. This source consists of wood surface coating operations.
- (cc) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Large Appliances, 40 CFR 63, Subpart NNNN (326 IAC 20-63) are not included in the permit, since this source does not coat large appliances and is not located at a plant site that is a major source of HAPs as defined in 40 CFR Part 63, Subpart A, §63.2.
- (dd) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20-81, 40 CFR 63, Subpart PPPP (Surface Coating of Plastic Parts and Products) are not included in the permit, since this source does not coat plastic parts and products and is not a major source of HAPs as defined in 40 CFR Part 63, Subpart A, §63.2. This source consists of wood surface coating operations.

- (ee) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Wood Building Products, 40 CFR 63, Subpart QQQQ (326 IAC 20-79), are not included in the permit, since this source does not coat wood building products and is not located at a plant site that is a major source of HAPs as defined in 40 CFR Part 63, Subpart A, §63.2. This source manufactures wood furniture and kitchen cabinetry, which are not considered wood building products as defined by this rule.
- (ff) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Metal Furniture, 40 CFR 63, Subpart RRRR (326 IAC 20-78), are not included in the permit, since this source does not coat metal furniture and is not located at a plant site that is a major source of HAPs as defined in 40 CFR Part 63, Subpart A, §63.2. This source consists of wood furniture and kitchen cabinetry surface coating operations.
- (gg) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Surface Coating of Metal Coil, 40 CFR 63, Subpart SSSS (326 IAC 20-64), are not included in the permit, since this source does not coat metal coil and is not located at a plant site that is a major source of HAPs as defined in 40 CFR Part 63, Subpart A, §63.2.
- (hh) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63, Subpart HHHHHH (6H), are not included in the permit, since this source does not conduct a paint stripping operation, an automotive body refinishing operation, or use spray application coatings that contain compounds of chromium, lead, manganese, nickel, or cadmium.
- (ii) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wood Preserving Area Sources, 40 CFR Part 63, Subpart QQQQQQ, are not included in the permit because the source is not a wood preserving operation as defined by 40 CFR 63.11433. Under 40 CFR 63.11433, "wood preserving" means the pressure or thermal impregnation of chemicals into wood to provide effective long-term resistance to attack by fungi, bacteria, insects, and marine borers. There are no wood treating processes at this source. This source consists of woodworking operations and wood surface coating operations.
- (jj) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

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

<b>State Rule Applicability Determination</b>
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The following state rules are applicable to the source:

- (a) 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))  
MSOP applicability is discussed under the Permit Level Determination – MSOP section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))  
This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated criteria pollutants are less than 250 tons per year and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1). The potential to emit greenhouse gases (GHGs) is less than the PSD subject to regulation threshold of one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

- (c) 326 IAC 2-3 (Emission Offset)  
Marshall County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.
- (d) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
This rule applies to any owner or operator who constructs or reconstructs a major source of hazardous air pollutants (HAP) after July 27, 1997. This rule does not apply to a major source that is specifically regulated, or exempted from regulation, by a standard issued pursuant to section 112(d), 112(h), or 112(j) of the Clean Air Act. This source is subject to 40 CFR 63, Subpart JJ, a standard issued pursuant to section 112(d) of the Clean Air Act.
- (e) 326 IAC 2-6 (Emission Reporting)  
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (f) 326 IAC 5-1 (Opacity Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
  - (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (g) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
- (h) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)  
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.
- (i) 326 IAC 6.5 PM Limitations Except Lake County  
This source is not subject to 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.
- (j) 326 IAC 6.8-10 (Lake County: Fugitive Particulate Matter)  
This source is not subject to 326 IAC 6.8 because it is not located in Lake County.
- (k) 326 IAC 12 (New Source Performance Standards)  
See Federal Rule Applicability Section of this TSD.
- (l) 326 IAC 20 (Hazardous Air Pollutants)  
See Federal Rule Applicability Section of this TSD.

#### Woodworking Operation

- (m) Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are applicable to Plant 1 - Wood Shop since these operations have potential particulate emissions after integral woodworking controls of greater than five hundred fifty-one thousandths (0.551) pound per hour. Pursuant to

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the woodworking operation shall not exceed 1.60 pounds per hour when operating as a process weight rate of 0.245 tons per hour.

This limitation was calculated using the following equation:

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

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

The potential particulate matter emissions before control for the woodworking operation is greater than the 326 IAC 6-3-2 allowable emission rate. Therefore, in order to comply with the 326 IAC 6-3-2 allowable particulate emission rate, the baghouse shall be in operation and control particulate emissions from Plant 1 - Wood Shop at all times that each of the woodworking units is in operation.

#### Surface Coating Operations:

- (n) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
Each of the emission units at this source is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each emission unit is less than twenty-five (25) tons per year.
- (o) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
  - (1) Pursuant to 326 IAC 6-3-1(b)(15), the surface coating booths (Plant 1 - Hand Wipe Application, Plant 1 - Cup Gun, Plant 2 - Primer/Sealer Booth 2 (PB3), Plant 2 - Primer/Sealer Booth 3 (PB4)), are each not subject to the requirements of 326 IAC 6-3-2, since each booth has a potential paint usage of less than 5 gallons per day.
  - (2) Pursuant to 326 IAC 6-3-1(b)(8), the Plant 2 - Wipe Stain Area is not subject to the requirements of 326 IAC 6-3-2, since it uses a wipe application which is similar to brush application and since it does not emit particulate emissions (i.e., does not use spray application).
  - (3) Pursuant to 326 IAC 6-3-1(b)(15), the surface coating booth Plant 1 - Sealer Booth, Plant 1 - Topcoat Booth, Plant 2 - Primer/Sealer Booth 1 (PB2), Plant 2 - Rework Booth (PB5), Plant 2 - Topcoat Booth (PB6), and Plant 2 - Sample Booth (Booth #4), are each subject to the requirements of 326 IAC 6-3-2, since it has a potential paint usage of greater than 5 gallons per day.  
  
Pursuant to 326 IAC 6-3-2(d) (Particulate emission limitations, work practices, and control technologies), the Permittee shall comply with the following for the surface coating booths Plant 1 - Sealer Booth, Plant 1 - Topcoat Booth, Plant 2 - Primer/Sealer Booth 1 (PB2), Plant 2 - Rework Booth (PB5), Plant 2 - Topcoat Booth (PB6), and Plant 2 - Sample Booth (Booth #4):
    - (A) The surface coating booths shall each be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.
    - (B) If overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the control device and do either of the following no later than four (4) hours after such observation:
      - (i) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

- (ii) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the source shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

- (p) 326 IAC 8-2-6 (Metal furniture coating operations)  
This source is not subject to 326 IAC 8-2-6, because it does not coat metal furniture. This source coats wood furniture and cabinets.
- (q) 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations)  
The surface coating operation is not subject to 326 IAC 8-2-9 because it does not coat metal or plastic parts. This source coats wood furniture and cabinets.
- (r) 326 IAC 8-2-10 (Flat Wood Panels; Manufacturing Operations)  
This rule applies to facilities located in any county, constructed after July 1, 1990, that perform surface finishing of flat wood panels, as defined by 326 IAC 8-2-10(a), and which have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls.  
  
Pursuant to 326 IAC 8-2-1(a)(4), the requirements of 326 IAC 8-2-10 are not applicable to the three (3) spray booths, because even though the spray booths have unlimited VOC potential emissions greater than fifteen (15) pounds of VOC per day before add-on controls, this source does not perform surface finishing of flat wood panels, as defined by 326 IAC 8-2-10(a).
- (s) 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)  
Pursuant to 326 IAC 8-2-1 and 326 IAC 8-2-12, this rule applies to facilities located in any county, constructed after July 1, 1990, that perform surface coating of wood furniture (or wood furniture components), including cabinets (kitchen, bath and vanity), tables, beds, chairs, sofas (non-upholstered), art objects, and any other coated furnishings made of solid wood, wood composition or simulated wood material and which have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls..
  - (1) The surface coating booths Plant 1 - Hand Wipe Application and Plant 1 - Cup Gun are each not subject to the requirements of 326 IAC 8-2-12, since each booth was constructed before July 1, 1990, and each booth has potential VOC emissions of less than fifteen (15) pounds of VOC per day before add-on controls.
  - (2) The surface coating booths Plant 1 - Sealer Booth and Plant 1 - Topcoat Booth are each not subject to the requirements of 326 IAC 8-2-12, since each booth was constructed before July 1, 1990.
  - (3) The surface coating booths Plant 2 - Wipe Stain Area is not subject to the requirements of 326 IAC 8-2-12, since it has potential VOC emissions of less than fifteen (15) pounds of VOC per day before add-on controls.
  - (4) The surface coating booths Plant 2 - Primer/Sealer Booth1 (PB2), Plant 2 - Primer/Sealer Booth 2 (PB3), Plant 2 - Primer/Sealer Booth 3 (PB4), Plant 2 - Rework Booth (PB5), Plant 2 - Topcoat Booth (PB6), and Plant 2 - Sample Booth (Booth #4) are each subject to the requirements of 326 IAC 8-2-12, since each booth was constructed after July 1, 1990, and each booth has potential VOC emissions of greater than fifteen (15) pounds of VOC per day before add-on controls..

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets in booths Plant 2 - Primer/Sealer Booth 1 (PB2), Plant 2 - Primer/Sealer Booth 2 (PB3), Plant 2 - Primer/Sealer Booth 3 (PB4), Plant 2 - Rework Booth (PB5), Plant 2 - Topcoat Booth (PB6), and Plant 2 - Sample Booth (Booth #4) 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.

Each surface coating booth is able to comply with this rule because they utilize one of the approved application methods listed in 326 IAC 8-2-12(b). Plant 2 - Primer/Sealer Booth1 (PB2), Plant 2 - Primer/Sealer Booth 2 (PB3), Plant 2 - Primer/Sealer Booth 3 (PB4), Plant 2 - Rework Booth (PB5), Plant 2 - Topcoat Booth (PB6), and Plant 2 - Sample Booth (Booth #4) use High Volume Low Pressure (HVLP) spray application.

- (t) 326 IAC 8-11 (Wood Furniture Coatings)  
The surface coating operation is not subject to 326 IAC 8-11 because this source is not located in Lake, Porter, Clark, or Floyd County.

#### Incinerator

- (u) 326 IAC 4-2-2 (Incinerators)  
The incinerator is subject to the requirements of 326 IAC 4-2-2, because it meets the definition of incinerator in 326 IAC 1-2-34 and is not subject to any of the rules identified in 326 IAC 4-2-1(b)(2). Pursuant to 326 IAC 4-2-2(b), the incinerator is subject to 326 IAC 4-2-2(a)(5) since each is not subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P\*, State Implementation Plan for Indiana.

Pursuant to 326 IAC 4-2-2 (Incinerators), the Permittee shall comply with the following for the incinerator:

- (1) All incinerators shall comply with the following requirements:
  - (A) Consist of primary and secondary chambers or the equivalent.
  - (B) Be equipped with a primary burner unless burning only wood products.
  - (C) Comply with 326 IAC 5-1 and 326 IAC 2.
  - (D) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in subsection (3).
  - (E) Not emit particulate matter in excess of one (1) of the following:

- (i) Three-tenths (0.3) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with a maximum solid waste capacity of greater than or equal to two hundred (200) pounds per hour.
    - (ii) Five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with solid waste capacity less than two hundred (200) pounds per hour.
  - (F) If any of the requirements of subdivisions (A) through (E) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.
- (2) An incinerator is exempt from subsection (1)(E) if subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P\*, State Implementation Plan for Indiana.
- (3) An owner or operator developing an operation and maintenance plan pursuant to subsection (1)(D) must comply with the following:
  - (A) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in subsection (1)(E) and include the following:
    - (i) Procedures for receiving, handling, and charging waste.
    - (ii) Procedures for incinerator startup and shutdown.
    - (iii) Procedures for responding to a malfunction.
    - (iv) Procedures for maintaining proper combustion air supply levels.
    - (v) Procedures for operating the incinerator and associated air pollution control systems.
    - (vi) Procedures for handling ash.
    - (vii) A list of wastes that can be burned in the incinerator.
  - (B) Each incinerator operator shall review the plan before initial implementation of the operation and maintenance plan and annually thereafter.
  - (C) The operation and maintenance plan must be readily accessible to incinerator operators.
  - (D) The owner or operator of the incinerator shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.
- (4) The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

**Compliance Determination, Monitoring and Testing Requirements**

- (a) The compliance determination and monitoring requirements applicable to this source are as follows:

<b>Emission Unit/Control</b>	<b>Control Device</b>	<b>Monitoring Frequency and Operating Parameters</b>
Plant 1 - Wood Shop	Baghouse	Once per day visible emission observations from the stack exhaust for Plant 1 - Wood Shop while the units are in operation.

These monitoring conditions are necessary because the baghouse for the wood working operation (Plant 1 - Wood Shop) must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations), 326 IAC 2-6.1 (MSOP), and to render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

**Conclusion and Recommendation**

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on January 14, 2014.

The operation of this source shall be subject to the conditions of the attached proposed MSOP No. M099-34075-00047. The staff recommends to the Commissioner that this MSOP be approved.

**IDEM Contact**

- (a) Questions regarding this proposed permit can be directed to Dominic Williams 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) 234-6555 or toll free at 1-800-451-6027 extension 4-6555.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.in.gov/idem](http://www.in.gov/idem)

Appendix A: Emission Calculations  
Summary

Company Name: Bremtown Fine Custom Cabinetry, Inc.  
Source Address: 712 North Bowen and 1456 State Road 331 N., Bremen, Indiana 46506  
Permit Number: M099-34075-00047  
Reviewer: Dominic Williams

Potential to Emit Before Integral Woodworking Controls (tons/year)*												
Stack ID	Emission Unit/ID*	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	Total HAPs	Worst Single HAP	
Plant 1 - BaghouseX	Plant 1 - Wood Shop	256.97	256.97	256.97	-	-	-	-	-	-	-	-
	Plant 1 - Hand Wipe Application	0	0	0	-	-	0.03	-	-	6.3E-03	Xylenes	6.0E-03
Plant 1 - Sealer BoothX	Plant 1 - Sealer Booth	1.43	1.43	1.43	-	-	7.32	-	-	0.13	Methanol	0.13
Plant 1 - Topcoat BoothX	Plant 1 - Topcoat Booth	0.27	0.27	0.27	-	-	4.33	-	-	0.91	Xylenes	0.67
	Plant 1 - Cup Gun	0.01	0.01	0.01	-	-	0.03	-	-	0	-	0
Plant 2 - Primer/Sealer Booth 1 (PB2)X	Plant 2 - Wipe Stain Area	0.00	0.00	0.00	-	-	2.11	-	-	0.01	Xylenes	0.01
	Plant 2 - Primer/Sealer Booth 1 (PB2)	0.75	0.75	0.75	-	-	6.26	-	-	0.46	Xylenes	0.34
Plant 2 - Primer/Sealer Booth 2 (PB3)X	Plant 2 - Primer/Sealer Booth 2 (PB3)	0.75	0.75	0.75	-	-	5.96	-	-	0.46	Xylenes	0.34
Plant 2 - Primer/Sealer Booth 3 (PB4)X	Plant 2 - Primer/Sealer Booth 3 (PB4)	0.75	0.75	0.75	-	-	5.81	-	-	0.46	Xylenes	0.34
Plant 2 - Rework Booth (PB5)X	Plant 2 - Rework Booth (PB5)	0.91	0.91	0.91	-	-	3.74	-	-	0.45	Xylenes	0.34
Plant 2 - Topcoat Booth (PB6)X	Plant 2 - Topcoat Booth (PB6)	1.44	1.44	1.44	-	-	5.75	-	-	1.10	Xylenes	0.89
Plant 2 - Sample Booth (Booth #4)X	Plant 2 - Sample Booth (Booth #4)	0.02	0.02	0.02	-	-	5.62	-	-	2.4E-05	Formaldehyde	1.2E-05
Natural Gas Combustion (All emission units)X	Natural Gas Combustion (All emission units)	0.04	0.15	0.15	0.01	1.98	0.11	1.66	2,393	0.04	Hexane	0.04
IncineratorX	Incinerator	1.26	1.19	1.03	0.08	1.55	0.12	1.89	670	0.11	HCl	0.06
Unpaved Roads	Paved Roads	0.01	2.6E-03	6.4E-04	-	-	-	-	-	-	-	-
	Unpaved Roads	3.3E-03	8.5E-04	8.5E-05	-	-	-	-	-	-	-	-
<b>Totals</b>		<b>264.61</b>	<b>264.64</b>	<b>264.48</b>	<b>0.09</b>	<b>3.53</b>	<b>47.19</b>	<b>3.56</b>	<b>3,062</b>	<b>4.13</b>	<b>Xylenes</b>	<b>2.94</b>

Potential to Emit After Integral Woodworking Controls (tons/year)*												
Stack ID	Emission Unit/ID	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	Total HAPs	Worst Single HAP	
Plant 1 - BaghouseX	Plant 1 - Wood Shop	5.14	5.14	5.14	-	-	-	-	-	-	-	-
	Plant 1 - Hand Wipe Application	0	0	0	-	-	0.03	-	-	6.3E-03	Xylenes	6.0E-03
Plant 1 - Sealer BoothX	Plant 1 - Sealer Booth	1.43	1.43	1.43	-	-	7.32	-	-	0.13	Methanol	0.13
Plant 1 - Topcoat BoothX	Plant 1 - Topcoat Booth	0.27	0.27	0.27	-	-	4.33	-	-	0.91	Xylenes	0.67
	Plant 1 - Cup Gun	0.01	0.01	0.01	-	-	0.03	-	-	0	-	0
Plant 2 - Primer/Sealer Booth 1 (PB2)X	Plant 2 - Wipe Stain Area	0.00	0.00	0.00	-	-	2.11	-	-	0.01	Xylenes	0.01
	Plant 2 - Primer/Sealer Booth 1 (PB2)	0.75	0.75	0.75	-	-	6.26	-	-	0.46	Xylenes	0.34
Plant 2 - Primer/Sealer Booth 2 (PB3)X	Plant 2 - Primer/Sealer Booth 2 (PB3)	0.75	0.75	0.75	-	-	5.96	-	-	0.46	Xylenes	0.34
Plant 2 - Primer/Sealer Booth 3 (PB4)X	Plant 2 - Primer/Sealer Booth 3 (PB4)	0.75	0.75	0.75	-	-	5.81	-	-	0.46	Xylenes	0.34
Plant 2 - Rework Booth (PB5)X	Plant 2 - Rework Booth (PB5)	0.91	0.91	0.91	-	-	3.74	-	-	0.45	Xylenes	0.34
Plant 2 - Topcoat Booth (PB6)X	Plant 2 - Topcoat Booth (PB6)	1.44	1.44	1.44	-	-	5.75	-	-	1.10	Xylenes	0.89
Plant 2 - Sample Booth (Booth #4)X	Plant 2 - Sample Booth (Booth #4)	0.02	0.02	0.02	-	-	5.62	-	-	2.4E-05	Formaldehyde	1.2E-05
Natural Gas Combustion (All emission units)X	Natural Gas Combustion (All emission units)	0.04	0.15	0.15	0.01	1.98	0.11	1.66	2,393	0.04	Hexane	0.04
IncineratorX	Incinerator	1.26	1.19	1.03	0.08	1.55	0.12	1.89	670	0.11	HCl	0.06
Unpaved Roads	Paved Roads	0.01	2.6E-03	6.4E-04	-	-	-	-	-	-	-	-
	Unpaved Roads	3.3E-03	8.5E-04	8.5E-05	-	-	-	-	-	-	-	-
<b>Totals</b>		<b>12.78</b>	<b>12.80</b>	<b>12.64</b>	<b>0.09</b>	<b>3.53</b>	<b>47.19</b>	<b>3.56</b>	<b>3,062</b>	<b>4.13</b>	<b>Xylenes</b>	<b>2.94</b>

Controlled Potential to Emit (tons/year)												
Stack ID	Emission Unit/ID	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	Total HAPs	Worst Single HAP	
Plant 1 - BaghouseX	Plant 1 - Wood Shop	5.14	5.14	5.14	-	-	-	-	-	-	-	-
	Plant 1 - Hand Wipe Application	0	0	0	-	-	0.03	-	-	6.3E-03	Xylenes	6.0E-03
Plant 1 - Sealer BoothX	Plant 1 - Sealer Booth	0.07	0.07	0.07	-	-	7.32	-	-	0.13	Methanol	0.13
Plant 1 - Topcoat BoothX	Plant 1 - Topcoat Booth	0.01	0.01	0.01	-	-	4.33	-	-	0.91	Xylenes	0.67
	Plant 1 - Cup Gun	3.3E-04	3.3E-04	3.3E-04	-	-	0.03	-	-	0	-	0
Plant 2 - Primer/Sealer Booth 1 (PB2)X	Plant 2 - Wipe Stain Area	0.00	0.00	0.00	-	-	2.11	-	-	0.01	Xylenes	0.01
	Plant 2 - Primer/Sealer Booth 1 (PB2)	0.04	0.04	0.04	-	-	6.26	-	-	0.46	Xylenes	0.34
Plant 2 - Primer/Sealer Booth 2 (PB3)X	Plant 2 - Primer/Sealer Booth 2 (PB3)	0.04	0.04	0.04	-	-	5.96	-	-	0.46	Xylenes	0.34
Plant 2 - Primer/Sealer Booth 3 (PB4)X	Plant 2 - Primer/Sealer Booth 3 (PB4)	0.04	0.04	0.04	-	-	5.81	-	-	0.46	Xylenes	0.34
Plant 2 - Rework Booth (PB5)X	Plant 2 - Rework Booth (PB5)	0.05	0.05	0.05	-	-	3.74	-	-	0.45	Xylenes	0.34
Plant 2 - Topcoat Booth (PB6)X	Plant 2 - Topcoat Booth (PB6)	0.07	0.07	0.07	-	-	5.75	-	-	1.10	Xylenes	0.89
Plant 2 - Sample Booth (Booth #4)X	Plant 2 - Sample Booth (Booth #4)	8.7E-04	8.7E-04	8.7E-04	-	-	5.62	-	-	2.4E-05	Formaldehyde	1.2E-05
Natural Gas Combustion (All emission units)X	Natural Gas Combustion (All emission units)	0.04	0.15	0.15	0.01	1.98	0.11	1.66	2,393	0.04	Hexane	0.04
IncineratorX	Incinerator	1.26	1.19	1.03	0.08	1.55	0.12	1.89	670	0.11	HCl	0.06
Unpaved Roads	Paved Roads	0.01	2.4E-03	5.8E-04	-	-	-	-	-	-	-	-
	Unpaved Roads	2.2E-03	5.6E-04	5.6E-05	-	-	-	-	-	-	-	-
<b>Totals</b>		<b>6.77</b>	<b>6.80</b>	<b>6.64</b>	<b>0.09</b>	<b>3.53</b>	<b>47.19</b>	<b>3.56</b>	<b>3,062</b>	<b>4.13</b>	<b>Xylenes</b>	<b>2.94</b>

Notes:

\*In October 1993 a Final Order Granting Summary Judgment was signed by Administrative Law Judge ("ALJ") Garretson resolving an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 92-A-J-833) related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls are necessary for the facility to produce its normal product and are integral to the normal operation of the facility, and therefore, potential emissions should be calculated after controls. Based on this ruling, potential particulate matter emissions from the woodworking operation were calculated after consideration of the baghouse controls for purposes of determining operating permit level and 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) applicability. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD), potential particulate matter emissions from the woodworking operation were calculated before consideration of the baghouse controls.

**Appendix A: Emission Calculations  
Woodworking Operation**

**Company Name: Bremtown Fine Custom Cabinetry, Inc.  
Source Address: 712 North Bowen and 1456 State Road 331 N., Bremen, Indiana 46506  
Permit Number: M099-34075-00047  
Reviewer: Dominic Williams**

Emission Unit	PM/PM10/PM2.5 Generated (lb/hr)* **	Control Efficiency	Uncontrolled PM/ PM10/PM2.5 Emissions (lb/hr)	Uncontrolled PM/PM10/PM2.5 Emissions (tpy)	Controlled PM/PM10/PM2.5 Emissions (lb/hr)	Controlled PM/PM10/PM2.5 Emissions (ton/yr)	PSD Minor Limit PM/PM10/PM2.5 (lb/hr)	PSD Minor Limited PM/PM10/PM2.5 Emissions (tons/yr)	Equivalent Limited Control Efficiency (%)
Woodworking Equipment, Plant 1	58.67	98.0%	58.67	256.97	1.17	5.14	1.60	7.00	97.3%

<b>Total Unlimited Potential to Emit (Before Integral Woodworking Controls) (tons/year) =</b>	<b>256.97</b>
<b>Total Unlimited Potential to Emit (After Integral Woodworking Controls) (tons/year) =</b>	<b>5.14</b>
<b>Limited Potential to Emit (tons/year) =</b>	<b>7.00</b>

**Methodology**

\*Pounds Sawdust Generated per Hour was calculated using the weight of particulate collected from the baghouse in 2012 (146,840 lbs) divided by the collection efficiency of the baghouse (98.0%) divided by hours of operation in 2012 (2528.25)  
 $(146,840 \text{ lbs/year}) / (98.0\%) / (2,528.25 \text{ hours/year}) = 58.67 \text{ lbs/hour}$

\*\*PM10 and PM2.5 emission assumed equal to PM emissions

Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr) = Pounds Sawdust Generated/Hour (lb/hr)

Uncontrolled PM/PM10/PM2.5 Emissions (ton/yr) = Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr) \* 8760 hours/year \* 1 ton/2000 lbs

Controlled PM/PM10/PM2.5 Emissions (lb/hr) = Uncontrolled PM/PM10/PM2.5 Emissions (lb/hr) \* (1 - Control Efficiency)

Controlled PM/PM10/PM2.5 Emissions (ton/yr) = Controlled PM/PM10/PM2.5 Emissions (lb/hr) \* 8760 hours/year \* 1 ton/2000 lbs

**326 IAC 6-3-2 Allowable PM Emission Rate**

Emission Units	Process Weight Rate (lbs/hr)	Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable PM Emission Rate (lbs/hr)	Uncontrolled PTE PM (lbs/hr)	Controlled PTE PM (lbs/hr)	Is a Control Device Needed to Comply with 326 IAC 6-3-2?
Woodworking Equipment, Plant 1	490	0.245	1.60	58.67	1.17	YES

**Methodology:**

326 IAC 6-3-2 Allowable PM Emission Rate =  $4.10 * [\text{Process Weight Rate (tons/hr)}]^{0.67}$

VOC Participates  
From Surface Coating Operations

Company Name: **Bremtown Fine Custom Cabinetry, Inc.**  
 Source Address: **712 North Bowen and 1456 State Road 331 N., Bremen, Indiana 46506**  
 Permit Number: **MS01-007-0017**  
 Reviewer: **Dominic Williams**

Emission Units/ID	Material	Density (lb/gal)	Weight % Volatile (H2O & Acetone)	Weight % Solids	Maximum Gallons of Material per hour	Maximum Gallons of Material per day	Pounds VOC per gallon of coating less water	Potential VOC pounds per hour	Potential VOC pounds per year	Potential VOC tons per year	Particulate Potential Before Control (lb/yr)	Particulate Potential After Control (lb/yr)	Control Efficiency	Transfer Efficiency
Plant 1 - Hand Wipe	FC-20923 Hazel	8.84	75.86%	24.11%	0.0088	0.0180	5.19	0.0045	0.0096	0.02	0.0	0.0	95%	100%
Plant 1 - Hand Wipe	FC-4530 Cats	7.85	82.91%	87.09%	0.0088	0.0180	2.62	0.0021	0.0047	0.01	0.0	0.0	95%	100%
<b>Total Per Booth</b>		<b>8.17</b>	<b>78.86%</b>	<b>63.44%</b>	<b>0.0096</b>	<b>0.04</b>	<b>3.01</b>	<b>0.7042</b>	<b>1.6309</b>	<b>3.08</b>	<b>0.00</b>	<b>0.00</b>	<b>95%</b>	<b>75%</b>
Plant 1 - Sealer Booth	FC-5230 Case Seal	7.55	72.85%	27.15%	0.0485	1.1629	5.00	0.2423	5.8141	1.06	0.1088	0.0054	95%	75%
Plant 1 - Sealer Booth	Acetone	6.56	100.00%	0.00%	0.1305	3.1325	0.00	0.0000	0.0000	0.00	0.0	0.0	95%	75%
Plant 1 - Sealer Booth	#4 419 Thinner	7.69	100.00%	0.00%	0.0551	1.3225	7.69	0.4238	10.1700	1.86	0.0	0.0	95%	75%
Plant 1 - Sealer Booth	#0.1 Reducer	7.20	100.00%	0.00%	0.0418	1.0035	7.20	0.3011	7.2355	1.32	0.0	0.0	95%	75%
<b>Total Per Booth</b>		<b>8.26</b>	<b>81.66%</b>	<b>48.34%</b>	<b>0.251</b>	<b>1.2423</b>	<b>4.27</b>	<b>2.3031</b>	<b>6.3134</b>	<b>1.16</b>	<b>0.1088</b>	<b>0.0054</b>	<b>95%</b>	<b>75%</b>
Plant 1 - Topcoat Booth	DM329-0040 Innovat Clear 40 Sheen	8.26	51.66%	48.34%	0.0398	0.7988	4.27	0.2331	3.1767	0.58	0.1448	0.0087	95%	75%
Plant 1 - Topcoat Booth	Acetone	6.56	100.00%	0.00%	0.1305	3.1325	0.00	0.0000	0.0000	0.00	0.0	0.0	95%	75%
Plant 1 - Topcoat Booth	#4 419 Thinner	7.69	100.00%	0.00%	0.0551	1.3225	7.69	0.4238	10.1700	1.86	0.0	0.0	95%	75%
Plant 1 - Topcoat Booth	#0.1 Reducer	7.20	100.00%	0.00%	0.0418	1.0035	7.20	0.3011	7.2355	1.32	0.0	0.0	95%	75%
<b>Total Per Booth</b>		<b>8.55</b>	<b>58.48%</b>	<b>44.52%</b>	<b>0.26</b>	<b>1.2423</b>	<b>4.74</b>	<b>2.6455</b>	<b>7.1801</b>	<b>1.32</b>	<b>0.1448</b>	<b>0.0087</b>	<b>95%</b>	<b>75%</b>
Plant 1 - Cub Gun	FC-N3036 Roanox	8.55	58.48%	44.52%	0.0016	0.0030	4.74	0.0075	0.1601	0.03	0.007	0.000	95%	75%
<b>Total Per Booth</b>		<b>8.55</b>	<b>58.48%</b>	<b>44.52%</b>	<b>0.0016</b>	<b>0.0030</b>	<b>4.74</b>	<b>0.0075</b>	<b>0.1601</b>	<b>0.03</b>	<b>0.007</b>	<b>0.000</b>	<b>95%</b>	<b>75%</b>
<b>Plant 1 Totals:</b>		<b>2.87</b>	<b>64.15%</b>	<b>11.71%</b>	<b>1.296</b>	<b>3.08</b>	<b>11.21</b>	<b>1.706</b>	<b>6.065</b>	<b>1.12</b>	<b>0.2256</b>	<b>0.0138</b>	<b>95%</b>	<b>75%</b>

Emission Units/ID	Material	Density (lb/gal)	Weight % Volatile (H2O & Acetone)	Weight % Solids	Maximum Gallons of Material per hour	Maximum Gallons of Material per day	Pounds VOC per gallon of coating less water	Potential VOC pounds per hour	Potential VOC pounds per year	Potential VOC tons per year	Particulate Potential Before Control (lb/yr)	Particulate Potential After Control (lb/yr)	Control Efficiency	Transfer Efficiency
Plant 2 - Wide Stain Area	GL 1200 VanDyke Brown	8.70	80.89%	30.31%	0.0047	0.1139	4.85	0.0230	0.0528	0.10	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GL 1045 Ultra Free	6.64	82.30%	17.47%	0.0054	0.0954	4.48	0.0202	0.0500	0.01	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GL 1054 Dark Brown	7.33	70.21%	29.79%	0.0024	0.0570	5.14	0.0122	0.2930	0.05	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GL 1139 Graphite	7.31	70.14%	29.84%	0.0088	0.0180	5.13	0.0241	0.0774	0.02	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GL 1047 Sealcoat	7.21	72.22%	27.80%	0.0095	0.2101	5.21	0.0204	0.0495	0.01	0.0004	0.0001	95%	100%
Plant 2 - Wide Stain Area	GL 1243 Dark	6.83	78.78%	21.22%	0.0028	0.0664	5.18	0.0149	0.3473	0.07	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GL 1244 Dark	6.58	81.77%	18.24%	0.0028	0.0664	5.51	0.0153	0.3661	0.07	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GL 1191 Light Brown	6.70	81.43%	21.22%	0.0028	0.0664	5.46	0.0151	0.3439	0.06	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GL 1063 Cobblestone	6.68	81.80%	18.21%	0.0024	0.0505	5.46	0.0122	0.0518	0.01	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GL 1211 Leather	7.12	66.46%	33.54%	0.0024	0.0505	4.73	0.0219	0.0449	0.01	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GL 1097 Macho	7.29	70.71%	29.29%	0.0094	0.2095	5.16	0.0200	0.0489	0.01	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GL 1097 Macho	7.29	69.74%	30.26%	0.0024	0.0505	5.00	0.0200	0.0483	0.01	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	Tex 10044 French Cream	7.15	69.48%	35.27%	0.0024	0.0505	4.46	0.0206	0.0614	0.01	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GL 1319 VanDyke Brown	8.70	80.89%	30.31%	0.0047	0.1139	4.85	0.0230	0.0528	0.10	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GL 1059 Black Sugar	6.65	80.65%	19.35%	0.0016	0.0380	5.36	0.0095	0.2035	0.04	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	F 6550 White Surface	7.65	65.46%	33.70%	0.0177	0.4266	7.08	0.8337	20.079	3.65	0.4640	0.032	95%	75%
Plant 2 - Wide Stain Area	L 4202 New Cranston	7.23	75.44%	24.56%	0.0020	0.0475	5.45	0.0108	0.2588	0.05	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	168487 English Manor	6.75	84.51%	15.49%	0.0079	0.1899	5.71	0.0452	1.0837	0.20	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	168488 English Manor	7.65	65.78%	33.70%	0.0099	0.2373	5.61	0.0452	1.0837	0.20	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	L 1502 Autumn Haze	6.53	83.27%	6.74%	0.0018	0.0475	6.09	0.1204	2.8899	0.53	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	L 4283 Pecan	6.82	82.97%	17.03%	0.0020	0.0475	5.66	0.0112	0.2684	0.05	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	L 4288 Cherry Door	6.61	80.05%	8.00%	0.0024	0.0595	6.00	0.0254	0.6577	0.11	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	L 4295 Pine	7.39	82.05%	28.49%	0.0020	0.0475	5.44	0.0107	0.2380	0.05	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	L 5048 Sage	6.03	83.98%	6.03%	0.0028	0.0180	6.20	0.0249	0.1177	0.02	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	L 5051 Door	7.29	74.40%	28.00%	0.0012	0.0295	5.27	0.0096	0.1988	0.03	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	L 5477 FC-3046 CM	8.41	81.83%	81.17%	0.0088	0.2133	5.21	0.0214	1.4739	0.27	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	GS 18046 Ash	7.02	87.65%	12.35%	0.0024	0.0505	6.15	0.0204	0.0584	0.01	0.0000	0.0000	95%	100%
Plant 2 - Wide Stain Area	Brasol Crema Polish	8.01	44.54%	55.46%	0.1789	4.1088	0.00	0.0000	0.0000	0.00	0.0000	0.0000	95%	100%
<b>Total Per Booth</b>		<b>6.98</b>	<b>68.30%</b>	<b>33.70%</b>	<b>0.28</b>	<b>6.14</b>	<b>8.28</b>	<b>11.98</b>	<b>21.11</b>	<b>8.99</b>	<b>0.0000</b>	<b>0.0000</b>	<b>95%</b>	<b>75%</b>
Plant 2 - Primer/Sealer Booth 1 (PB2)	Dye 1203 Cherry Door	6.92	98.30%	1.71%	0.0119	0.2848	6.80	0.0807	1.9358	0.36	0.0015	0.0001	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	Dye 1189 DS-126 CM	7.21	98.33%	1.67%	0.0040	0.0949	6.80	0.0269	0.6655	0.12	0.0018	0.0001	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	Dye 1098 DS-028 CM	6.84	98.30%	0.20%	0.0018	0.3797	5.22	0.0078	2.0933	0.47	0.0004	0.0000	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	Dye 1346 Cherry Sap	6.86	99.54%	0.46%	0.0020	0.0475	6.83	0.0135	0.3400	0.06	0.0001	0.0000	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	#0.1 Reducer	7.20	100.00%	0.00%	0.0167	0.4014	7.20	0.1204	2.902	0.53	0.0000	0.0000	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	#0.1 Reducer	10.68	66.30%	33.70%	0.1177	0.2826	7.08	0.8337	20.079	3.65	0.4640	0.032	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	1437 Surface Crème	10.77	32.00%	67.88%	0.0089	0.2373	3.45	0.0341	0.8186	0.15	0.0793	0.0042	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	1713 Surface	10.78	32.00%	67.91%	0.0079	0.1899	3.46	0.0274	0.6569	0.12	0.0634	0.0032	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	1713 Surface	10.78	32.00%	67.91%	0.0079	0.1899	3.46	0.0274	0.6569	0.12	0.0634	0.0032	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	LS 1295 Shadow Blue	8.40	80.96%	39.04%	0.0028	0.0633	5.12	0.0135	0.3339	0.06	0.0095	0.0005	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	LS 1600 Seams	8.47	80.19%	39.81%	0.0013	0.0316	5.10	0.0067	0.1614	0.03	0.0049	0.0002	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	LS 1712 Khaki	8.71	87.37%	42.63%	0.0020	0.0475	5.10	0.0100	0.2391	0.04	0.0081	0.0004	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	LS 1014 Black Sugar	8.24	81.92%	38.00%	0.0027	0.0651	5.01	0.0138	0.3322	0.06	0.0093	0.0005	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	T 10356 Squash	8.79	66.90%	43.01%	0.0226	0.5633	5.01	0.0132	0.3171	0.06	0.0109	0.0005	95%	75%
Plant 2 - Primer/Sealer Booth 1 (PB2)	DF 6350 White Surface	10.68	66.30%	33.70%	0.0160	0.3845	7.08	1.135	2.7229	0.50	0.0631	0.0032	95%	75%
<b>Total Per Booth</b>		<b>6.22</b>	<b>62.21</b>	<b>32.68</b>	<b>0.21</b>	<b>4.97</b>	<b>8.28</b>	<b>11.98</b>	<b>21.11</b>	<b>8.99</b>	<b>0.0000</b>	<b>0.0000</b>	<b>95%</b>	<b>75%</b>
Plant 2 - Primer/Sealer Booth 3 (PB4)	Dye 10226 Ceylone	6.88	99.49%	0.51%	0.0020	0.0475	6.82	0.0135	0.3327	0.06	0.0001	0.0000	95%	75%
Plant 2 - Primer/Sealer Booth 3 (PB4)	Dye 10202 English Manor	6.84	99.50%	0.45%	0.0020	0.0475	6.80	0.0135	0.3326	0.06	0.0001	0.0000	95%	75%
Plant 2 - Primer/Sealer Booth 3 (PB4)	Dye 10202 English Manor	6.85	99.27%	0.73%	0.0089	0.2373	6.81	0.0274	1.6730	0.30	0.0005	0.0000	95%	75%
Plant 2 - Primer/Sealer Booth 3 (PB4)	Dye 1183 Honey	6.86	99.53%	0.47%	0.0040	0.0949	6.82	0.0270	0.6777					



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

**Company Name:** Brenttown Fine Custom Cabinetry, Inc.  
**Source Address:** 712 North Bowen and 1456 State Road 331 N., Bremen, Indiana 46506  
**Permit Number:** M099-34075-00047  
**Reviewer:** Dominic Williams

Emmission Unit/ID	Heat Input Capacity MMBtu/hr
Plant 1 Reznor SCA300-3 - A	0.231
Plant 1 Reznor SCA125-5 - A	0.09625
Plant 1 Reznor SCA300-3 - B	0.231
Plant 1 Reznor SCA125-5 - B	0.09625
Plant 2 Reznor SCA125-5 - A	0.09625
Plant 2 Reznor SCA125-5 - B	0.09625
Plant 2 Bananza 3103000.28 - Air Make-up	3.456
Plant 3 Lennox LF24-200A-6 - A	0.156
Plant 3 Lennox LF24-200A-6 - B	0.156
<b>Total</b>	<b>4.62</b>

HHV mmBtu	Potential Throughput MMCF/yr
mmscf	MMCF/yr
1020	39.6

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx 100	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	0.012	**see below	0.11	1.66

\*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/1,000 MMBtu  
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**HAPs Emissions Calculations**

	HAPs - Organics					Total Organics
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	0.037290
Potential Emission in tons/yr	4.2E-05	2.4E-05	1.5E-03	0.04	6.7E-05	

	HAPs - Metals					Total Metals
	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	0.000109
Potential Emission in tons/yr	9.9E-06	2.2E-05	2.8E-05	7.5E-06	4.2E-05	

<b>Total HAPs</b>	<b>0.04</b>
<b>Worst HAP</b>	<b>0.04</b> Hexane

Methodology is the same 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**

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	2,378	0.05	0.04
Summed Potential Emissions in tons/yr	2,378		
CO2e Total in tons/yr based on 11/29/2013 federal GWPs	2,392		
CO2e Total in tons/yr based on 10/30/2009 federal GWPs	2,393		

**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 (21) + N2O Potential Emission ton/yr x N2O GWP (310).

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

**Company Name:** Brenttown Fine Custom Cabinetry, Inc.  
**Source Address:** 712 North Bowen and 1456 State Road 331 N., Bremen, Indiana 46506  
**Permit Number:** M099-34075-00047  
**Reviewer:** Dominic Williams

Capacity (tons/hr)	0.045
Higher Heating Value of fuel (Btu/lb)	8000
Converted Capacity in MMBtu/hr	0.72

Emission Factor in lb/MMBtu	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
	0.4	0.377	0.327	0.025	0.49	0.038	0.6
Potential emissions in tons per year	1.26	1.19	1.03	0.08	1.55	0.12	1.89

Wet wood is considered to be greater than or equal to 20% moisture content. Dry wood is considered to be less than 20% moisture content.

\*The PM10 and PM2.5 emission factors include the condensible PM emission factor of 0.017 lb/MMBtu, measured by EPA Method 202 (or equivalent) and the appropriate filterable PM emission factor, measured by EPA Method 5 (or equivalent). The PM emission factor is filterable PM measured by EPA Method 5 (or equivalent).

\*\*The CO emission factor is for stokers and dutch ovens/fuel cells. Change the emission factor to 0.17 lb/MMBtu if the calculations are for a fluidized bed combustor.

	Selected Hazardous Air Pollutants				
	Acrolein	Benzene	Formaldehyde	Hydrogen Chloride	Styrene
Emission Factor in lb/MMBtu	4.0E-03	4.2E-03	4.4E-03	1.9E-02	1.9E-03
Potential Emissions in tons/yr	1.3E-02	1.3E-02	1.4E-02	6.0E-02	6.0E-03

**PTE of Total HAPs (tons/year) = 0.11**

These factors include the five HAPs with the highest AP-42 emission factors.

	Greenhouse Gases		
	CO2	CH4	N2O
Emission Factor in kg/mmBtu from 40 CFR 98	93.8	0.032	
Emission Factor in lb/mmBtu from AP-42			0.013
Potential Emission in tons/yr	652	0.22	0.04
Summed Potential Emissions in tons/yr	652.41		
CO2e Total in tons/yr based on 11/29/2013 federal GWPs	670		
CO2e Total in tons/yr based on 10/30/2009 federal GWPs	670		

**Methodology**

To convert from tons/hr capacity to MMBtu/hr capacity:

Heat Input Capacity (MMBtu/hr) = Capacity (tons/hr) x Higher Heating Value of wood fuel (Btu/lb) x (1 MMBtu/10<sup>6</sup> Btu) x 2000 lbs/1 ton

Emission Factors are from AP-42 Chapter 1.6 (revised 3/02), SCCs #1-0X-009-YY where X = 1 for utilities, 2 for industrial, and 3 for commercial/institutional; Y = 01 for bark-fired boilers, 02 for bark and wet wood-fired boilers, 03 for wet wood-fired boilers, and 08 for dry wood-fired boilers

Emissions (tons/yr) = Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760hrs/yr x 1ton/2000lbs

CO2 and CH4 Emission Factors from Tables C-1 and 2 of 40 CFR Part 98 Subpart C. N2O emission factor from AP-43 Chapter 1.6 (revised 3/02).

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

Potential Emission (tons/yr) = Heat Input Capacity mmBtu/hr x Emission Factor (kg/mmBtu) x 2.20462 lb/kg x 8760 hrs/yr /2,000 lb/ton

Potential Emission (tons/yr) = Heat Input Capacity mmBtu/hr x Emission Factor (lb/mmBtu) x 8760 hrs/yr /2,000 lb/ton

CO2e (tons/yr) based on 11/29/2013 federal GWPs= 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).

CO2e (tons/yr) based on 10/30/2009 federal GWPs = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emission Calculations  
Fugitive Dust Emissions - Paved Roads**

**Company Name: Bremtown Fine Custom Cabinetry, Inc.**  
**Source Address: 712 North Bowen and 1456 State Road 331 N., Bremen, Indiana 46506**  
**Permit Number: M099-34075-00047**  
**Reviewer: Dominic Williams**

**Paved Roads at Industrial Site**

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Plant 1 Vehicle (entering plant) (one-way trip)	5.0	1.0	5.0	3.0	15.0	30	0.006	0.03	10.4
Plant 1 Vehicle (leaving plant) (one-way trip)	5.0	1.0	5.0	13.0	65.0	30	0.006	0.03	10.4
Plant 2 Vehicle (entering plant) (one-way trip)	4.0	1.0	4.0	2.0	8.0	30	0.006	0.02	8.3
Plant 2 Vehicle (leaving plant) (one-way trip)	4.0	1.0	4.0	12.0	48.0	100	0.019	0.08	27.7
<b>Totals</b>			<b>18.0</b>		<b>136.0</b>			<b>0.16</b>	<b>56.7</b>

Average Vehicle Weight Per Trip =  tons/trip  
 Average Miles Per Trip =  miles/trip

Unmitigated Emission Factor, Ef =  $[k * (sL)^{0.91} * (W)^{1.02}]$  (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	7.6	7.6	7.6	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m <sup>2</sup> = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext =  $E * [1 - (p/4N)]$  (Equation 2 from AP-42 13.2.1)

Mitigated Emission Factor, Eext =  $Ef * [1 - (p/4N)]$   
 where p =  days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)  
 N =  days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.684	0.137	0.0336	lb/mile
Mitigated Emission Factor, Eext =	0.626	0.125	0.0307	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	3.5E-03	7.1E-04	1.7E-04	3.2E-03	6.5E-04	1.6E-04
Vehicle (leaving plant) (one-way trip)	9.5E-03	1.9E-03	4.6E-04	8.6E-03	1.7E-03	4.2E-04
<b>Totals</b>	<b>1.3E-02</b>	<b>2.6E-03</b>	<b>6.4E-04</b>	<b>1.2E-02</b>	<b>2.4E-03</b>	<b>5.8E-04</b>

**Methodology**

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] \* [Maximum trips per day (trip/day)]  
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
 Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] \* [Maximum one-way distance (mi/trip)]  
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]  
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]  
 Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \* [Unmitigated Emission Factor (lb/mile)] \* (ton/2000 lbs)  
 Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \* [Mitigated Emission Factor (lb/mile)] \* (ton/2000 lbs)  
 Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] \* [1 - Dust Control Efficiency]

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 PM2.5 = Particulate Matter (<2.5 um)  
 PTE = Potential to Emit

**Appendix A: Emission Calculations  
Fugitive Dust Emissions - Unpaved Roads**

**Company Name:** Bremtown Fine Custom Cabinetry, Inc.  
**Source Address:** 712 North Bowen and 1456 State Road 331 N., Bremen, Indiana 46506  
**Permit Number:** M099-34075-00047  
**Reviewer:** Dominic Williams

**Unpaved Roads at Industrial Site**

The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

**Vehicle Information (provided by source)**

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Plant 3 Vehicle (entering plant) (one-way trip)	1.0	1.0	1.0	1.0	1.0	10	0.002	0.0	0.7
Plant 3 Vehicle (leaving plant) (one-way trip)	1.0	1.0	1.0	23.0	23.0	10	0.002	0.0	0.7
<b>Totals</b>			<b>2.0</b>		<b>24.0</b>			<b>0.0</b>	<b>1.4</b>

Average Vehicle Weight Per Trip = 12.0 tons/trip  
 Average Miles Per Trip = 0.00 miles/trip

Unmitigated Emission Factor, Ef =  $k \cdot [(s/12)^a] \cdot [(W/3)^b]$  (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	0.15	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	12.0	12.0	12.0	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext =  $E \cdot [(365 - P)/365]$  (Equation 2 from AP-42 13.2.2)

Mitigated Emission Factor, Eext =  $E \cdot [(365 - P)/365]$   
 where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	4.81	1.23	0.12	lb/mile
Mitigated Emission Factor, Eext =	3.17	0.81	0.08	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	1.7E-03	4.2E-04	4.2E-05	1.1E-03	2.8E-04	2.8E-05
Vehicle (leaving plant) (one-way trip)	1.7E-03	4.2E-04	4.2E-05	1.1E-03	2.8E-04	2.8E-05
<b>Totals</b>	<b>3.3E-03</b>	<b>8.5E-04</b>	<b>8.5E-05</b>	<b>2.2E-03</b>	<b>5.6E-04</b>	<b>5.6E-05</b>

**Methodology**

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] \* [Maximum trips per day (trip/day)]  
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
 Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] \* [Maximum one-way distance (mi/trip)]  
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]  
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]  
 Unmitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Unmitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
 Mitigated PTE (tons/yr) = (Maximum one-way miles (miles/yr)) \* (Mitigated Emission Factor (lb/mile)) \* (ton/2000 lbs)  
 Controlled PTE (tons/yr) = (Mitigated PTE (tons/yr)) \* (1 - Dust Control Efficiency)

**Abbreviations**

PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 PM2.5 = Particulate Matter (<2.5 um)  
 PTE = Potential to Emit

**Appendix A: Emission Calculations**  
**Surface Coating Operations - Supplemental**

Company Name: **Brenstone Fine Custom Cabinetry, Inc.**  
 Source Address: **712 North Bowen and 1456 State Road 331 N., Bremen, Indiana 46506**  
 Permit Number: **MS02-040-00467**  
 Reviewer: **Dominic Williams**

**Section 1: Plant 1**

Material	Vendor	Booth ID	Area In Which This Product Used	Product description Type (catalyst, reducer, coating, clean-up solvent)	Amount Purchased 2012 (gallons)	% Purchased Used in Booth	Amount Used 2012 This Booth or Area (gallons)	Data Source	EHS, Tech Data Sheet (wt. %)	Density (lb/gal)	Volume (Volts Organic)	Weight % of Water or Exempt Compounds	Volume % Organic	Volume % Non-Volatiles (solids)	Maximum (Lb/gal)
FC-0022 Hemi	Frish Vika	Plant 1 - Hand Vise	Booth	Sealer	2	100%	2	MSEB	8.84	8.84	0	0	100	0	8.84
FC-0031 Gals	Frish Vika	Plant 1 - Hand Vise	Booth	Sealer	112.48	100%	112.48	MSEB	2.56	2.56	32.61	0	100	0	112.48
FF-0002 Clear Coat	Accession	Plant 1 - Sealer Booth	1 & 2	Top & Seal	400.03	25%	100.01	MSEB	2.56	72.85	6.63	0	100	0	86.22
Carla Seal Pre-Cat	Accession	Plant 1 - Sealer Booth	1 & 2	Top & Seal	1300	25%	325.00	MSEB	2.56	72.85	6.63	0	100	0	86.22
CL-419 Thinner	Accession	Plant 1 - Sealer Booth	1 & 2	Additive	557.28	25%	139.32	MSEB	7.68	100	0	100	0	100	139.32
CL-1 Sealer	Accession	Plant 1 - Sealer Booth	1 & 2	Additive	422.88	25%	105.72	MSEB	2.56	100	0	100	0	100	105.72
DM-025-040 Invoac Clear 40 Sheen	Accession	Plant 1 - Sealer Booth	1 & 2	Top & Seal	311.73	50%	155.87	MSEB	8.26	51.66	0	0	100	0	43.86
Amvite	Accession	Plant 1 - Sealer Booth	1 & 2	Additive	1300	25%	325.00	MSEB	7.68	100	0	100	0	100	325.00
AL-18 Sealer	Accession	Plant 1 - Sealer Booth	1 & 2	Additive	447.48	25%	111.87	MSEB	2.56	100	0	100	0	100	111.87
CL-1 Sealer	Accession	Plant 1 - Sealer Booth	1 & 2	Additive	422.88	25%	105.72	MSEB	2.56	100	0	100	0	100	105.72
FC-0026 Epoxy	Frish Vika	Plant 1 - Cop. Con	Booth	Sealer	4	100%	4	MSEB	8.84	8.84	0	0	100	0	8.84

**Section 2: Plant 2**

Material	Vendor	Booth ID	Area In Which This Product Used	Product description Type (catalyst, reducer, coating, clean-up solvent)	Amount Purchased 2012 (gallons)	% Purchased Used in Booth	Amount Used 2012 This Booth or Area (gallons)	Data Source	EHS, Tech Data Sheet (wt. %)	Density (lb/gal)	Volume (Volts Organic)	Weight % of Water or Exempt Compounds	Volume % Organic	Volume % Non-Volatiles (solids)	Maximum (Lb/gal)
CL-1000 Vitrified Brown	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	17	100.00%	17	MSEB	6.9673	69.88	0	0	100	0	69.88
CL-1040 Under Pin	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	1	100.00%	1	MSEB	6.8418	68.34	0	0	100	0	68.34
CL-1002 Dark Brown	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	2	100.00%	2	MSEB	7.0268	70.21	0	0	100	0	70.21
CL-1139 Graphite	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	2	100.00%	2	MSEB	7.3173	73.16	0	0	100	0	73.16
CL-1047 Red/Brown	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	2	100.00%	2	MSEB	7.2102	72.10	0	0	100	0	72.10
CL-1245 Matt Brown	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	7	100.00%	7	MSEB	6.826	68.27	0	0	100	0	68.27
CL-1044 Clear	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	7	100.00%	7	MSEB	6.826	68.27	0	0	100	0	68.27
CL-1101 Light Brown	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	7	100.00%	7	MSEB	6.826	68.27	0	0	100	0	68.27
CL-1001 Lustrous/Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	7	100.00%	7	MSEB	6.826	68.27	0	0	100	0	68.27
CL-1125 Inmate	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	1	100.00%	1	MSEB	7.12	71.2	0	0	100	0	71.2
CL-1077 Matte	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	1	100.00%	1	MSEB	7.0172	70.17	0	0	100	0	70.17
Emp. 1004 Emerald Green	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	1	100.00%	1	MSEB	7.148	71.48	0	0	100	0	71.48
Emp. 110 Black Charcoal	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	14	100.00%	14	MSEB	7.1721	71.72	0	0	100	0	71.72
CL-1135 Vitrified Brown	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	14	100.00%	14	MSEB	6.8468	68.47	0	0	100	0	68.47
CL-1003 Black Charcoal	Accession	Plant 2 - Vitrif. Seal Area	2	Gloss	4	100.00%	4	MSEB	6.8467	68.46	0	0	100	0	68.46
FC-001 Reducer	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	7.68	76.8	0	0	100	0	76.8
4002 New Charbon	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	7.2273	72.27	0	0	100	0	72.27
10047 Emerald Green	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	26	100.00%	26	MSEB	6.847	68.47	0	0	100	0	68.47
10411 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	26	100.00%	26	MSEB	6.8471	68.47	0	0	100	0	68.47
10014 Aquatic Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	26	100.00%	26	MSEB	6.8471	68.47	0	0	100	0	68.47
10018 Cherry Red	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10019 Charcoal	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	1	100.00%	1	MSEB	6.8471	68.47	0	0	100	0	68.47
10024 Emerald Green	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10025 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10026 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10027 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10028 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10029 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10030 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10031 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10032 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10033 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10034 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10035 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10036 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10037 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10038 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10039 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10040 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10041 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10042 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10043 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10044 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10045 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10046 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10047 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10048 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10049 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10050 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10051 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10052 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10053 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10054 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10055 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10056 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10057 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10058 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10059 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10060 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10061 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10062 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10063 Light Blue	Accession	Plant 2 - Vitrif. Seal Area	2	Sealer	5	100.00%	5	MSEB	6.8471	68.47	0	0	100	0	68.47
10064 Light Blue	Accession</														









# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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**Michael R. Pence**  
*Governor*

**Thomas W. Easterly**  
*Commissioner*

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

**TO:** Tim Johnson  
Bremtown Fine Custom Cabinetry, Inc.  
1458 SR 331 N  
Bremen, IN 46506

**DATE:** June 10, 2014

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

**SUBJECT:** Final Decision  
Minor Source Operating Permit (MSOP)  
099-34075-00047

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:  
Kathy Thomas, Industrial Safety and Environmental Services, Inc.  
Randy Martin, Industrial Safety and Environmental Services, Inc.  
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](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 6/13/2013



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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**Michael R. Pence**  
Governor

**Thomas W. Easterly**  
Commissioner

June 10, 2014

TO: Bremen Public Library

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

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

**Applicant Name: Bremtown Fine Custom Cabinetry, Inc.**  
**Permit Number: 099-34075-00047**

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

IDEM Staff	VHAUN 6/10/2014 Bremtown Fine Custom Cabinetry, Inc. 099-34075-00047 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:  <b>CERTIFICATE OF MAILING ONLY</b>	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing 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		Tim Johnson Bremtown Fine Custom Cabinetry, Inc. 1456 SR 331 N Bremen IN 46506 (Source CAATS)										CONFIRMED DELIVERY
2		Bremen Public Library 304 N Jackson St Bremen IN 46506-1130 (Library)										
3		Marshall County Commissioners 112 West Jefferson Street Plymouth IN 46563 (Local Official)										
4		Bremen Town Council and Town Manager 111 South Center Street Bremen IN 46506 (Local Official)										
5		Marshall County Health Department 112 W Jefferson Street, Suite 103 Plymouth IN 46563-1764 (Health Department)										
6		LaPaz Town Council PO Box 0820 LaPaz IN 46537 (Local Official)										
7		Ms. Julie Grzesiak 139 N. Michigan St. Argos IN 46501 (Affected Party)										
8		Kathy Thomas Industrial Safety and Environmental Services, Inc. 30723 Old Road US 20 Elkhart IN 46514 (Consultant)										
9		Randy Martin Industrial Safety and Environmental, Inc. 30742 Old US Highway 20 Elkhart IN 46514 (Consultant)										
10												
11												
12												
13												
14												
15												

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
8			