



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant

DATE: December 28, 2011

RE: Cabinets by Nichols, Inc. / 081-30784-00033

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

## 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 enclosed matter. 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.

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.

Enclosures  
FNPER.dot12/03/07



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

**Minor Source Operating Permit Renewal  
OFFICE OF AIR QUALITY**

**Cabinets by Nichols, Inc.  
40 W Old Plank Rd (69W SR 144)  
Bargersville, Indiana 46106**

(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.: M081-30784-00033	
Issued by:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: December 28, 2011  Expiration Date: December 28, 2021

## TABLE OF CONTENTS

<b>A. SOURCE SUMMARY</b> .....	<b>4</b>
A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]	
A.2 Emission Units and Pollution Control Equipment Summary	
<b>B. GENERAL CONDITIONS</b> .....	<b>5</b>
B.1 Definitions [326 IAC 2-1.1-1]	
B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]	
B.3 Term of Conditions [326 IAC 2-1.1-9.5]	
B.4 Enforceability	
B.5 Severability	
B.6 Property Rights or Exclusive Privilege	
B.7 Duty to Provide Information	
B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]	
B.9 Preventive Maintenance Plan [326 IAC 1-6-3]	
B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]	
B.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]	
B.12 Permit Renewal [326 IAC 2-6.1-7]	
B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]	
B.14 Source Modification Requirement	
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]	
B.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]	
B.17 Annual Fee Payment [326 IAC 2-1.1-7]	
B.18 Credible Evidence [326 IAC 1-1-6]	
<b>C. SOURCE OPERATION CONDITIONS</b> .....	<b>10</b>
<b>Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]</b>	
C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]	
C.2 Permit Revocation [326 IAC 2-1.1-9]	
C.3 Opacity [326 IAC 5-1]	
C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]	
C.6 Fugitive Dust Emissions [326 IAC 6-4]	
C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]	
<b>Testing Requirements [326 IAC 2-6.1-5(a)(2)]</b>	
C.8 Performance Testing [326 IAC 3-6]	
<b>Compliance Requirements [326 IAC 2-1.1-11]</b>	
C.9 Compliance Requirements [326 IAC 2-1.1-11]	
<b>Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]</b>	
C.10 Compliance Monitoring [326 IAC 2-1.1-11]	
C.11 Instrument Specifications [326 IAC 2-1.1-11]	
<b>Corrective Actions and Response Steps</b>	
C.12 Response to Excursions or Exceedances	
C.13 Actions Related to Noncompliance Demonstrated by a Stack Test	

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

- C.14 Malfunctions Report [326 IAC 1-6-2]
- C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]
- C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2]  
[IC 13-14-1-13]

**D.1. EMISSIONS UNIT OPERATION CONDITIONS..... 16**

**Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]**

- D.1.1 Particulate [326 IAC 6-3]
- D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

**Compliance Determination Requirements**

- D.1.3 Particulate Control

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

- D.1.4 Broken or Failed Bag Detection

**D.2. EMISSIONS UNIT OPERATION CONDITIONS..... 16**

**Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]**

- D.2.1 Particulate [326 IAC 6-3]
- D.2.2 Volatile Organic compounds (VOC) [326 IAC 8-2-12]
- D.2.3 Preventive Maintenance Plan [326 IAC 1-6-3]

Annual Notification ..... 20

Malfunction Report ..... 21

## 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)]

---

The Permittee owns and operates a stationary wood cabinet manufacturing source.

Source Address:	40 W Old Plank Rd, Bargersville, Indiana 46106
General Source Phone Number:	(317) 422-8031
SIC Code:	2434 (Wood Kitchen Cabinets)
County Location:	Johnson
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 Emission Units and Pollution Control Equipment Summary

---

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

- (a) One (1) woodworking facility, identified as WW-1, constructed in 1969, operating at a maximum rate of 171.72 pounds of solid wood per hour and 187.03 pounds of plywood per hour (total 358.75 pounds per hour), utilizing a baghouse (ID #BW-1) for particulate emission control, exhausting back into the building through vent SV ID# 1;
- (b) One (1) flat print coating line, consisting of three (3) spray booths, identified as PB-15, PB-16, and PB-17, constructed in 1986, 1994, and 1974 (after October 7) respectively, each operating at a maximum rate of 360 wooden parts per hour, each equipped with high volume low pressure (HVLP) spray equipment and dry filters for particulate emission control, exhausting through stacks ID# 15, 16, and 17 respectively;
- (c) One (1) spray paint coating line, consisting of three (3) spray booths, identified as PB-21, PB-22, and PB-23, each constructed in 1999, each operating at a maximum rate of 90 wooden parts per hour, each equipped with high volume low pressure (HVLP) spray equipment and dry filters for particulate emission control exhausting through stacks ID # 21, 22, and 23 respectively;
- (d) Natural-gas fired combustion sources with heat input equal to or less than ten (1) MMBtu/hr;
  - (1) Two (2) drying ovens on the spray paint line, each with a maximum heat input capacity of one (1) MMBtu/hr; and
- (e) Replacement or repair of electrostatic precipitators, bags in baghouse, and filter in other air filtration equipment.

## **SECTION B GENERAL CONDITIONS**

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

---

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) 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, M081-30784-00033, is issued for a fixed term of ten (10) 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]**

---

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**

---

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**

---

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**

---

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

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

- 
- (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)]**

---

- (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]**

---

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.The Permittee shall implement the PMPs.
- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality

100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

---

- (a) All terms and conditions of permits established prior to M081-30784-00033 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)]**

---

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]**

---

- (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]**

---

- (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**

---

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]

---

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]**

---

- (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]**

---

- (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]**

---

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]

---

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]

---

- (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]**

---

- (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]**

---

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]**

---

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]**

---

- (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.
- (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**

---

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**

---

- (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) 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:

- (a) One (1) woodworking facility, identified as WW-1, constructed in 1969, operating at a maximum rate of 171.72 pounds of solid wood per hour and 187.03 pounds of plywood per hour (total 358.75 pounds per hour), utilizing a baghouse (ID #BW-1) for particulate emission control, exhausting back into the building through vent SV ID# 1; [326 IAC 6-3]

(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 [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2(e), the particulate from the woodworking operation (WW-1) shall not exceed 1.29 pounds per hour when operating at a process weight rate of 0.179 tons per hour.

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

$$E = 4.10^{0.67} P$$

Where E = rate of emission in pounds per hour and  
P = process weight rate in tons per hour

#### D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

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

### Compliance Determination Requirements

#### D.1.3 Particulate Control

- (a) In order to comply with Condition D.1.1, the baghouse (#BW-1) for particulate control shall be in operation and control emissions from the woodworking operation (WW-1), at all times that the woodworking operation (WW-1) is in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

### Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

#### D.1.4 Broken or Failed Bag Detection

- (a) For a single compartment baghouse controlling emission from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced.
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or

replaced. The emission s unit shall be shut down no later than the completion of the processing of the material in the line.

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

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (b) One (1) flat print coating line, consisting of three (3) spray booths, identified as PB-15, PB-16, and PB-17, constructed in 1986, 1994, and 1974 (after October 7) respectively, each operating at a maximum rate of 360 wooden parts per hour, each equipped with high volume low pressure (HVLP) spray equipment and dry filters for particulate emission control, exhausting through stacks ID# 15, 16, and 17 respectively;
- (c) One (1) spray paint coating line, consisting of three (3) spray booths, identified as PB-21, PB-22, and PB-23, each constructed in 1999, each operating at a maximum rate of 90 wooden parts per hour, each equipped with high volume low pressure (HVLP) spray equipment and dry filters for particulate emission control exhausting through stacks ID # 21, 22, and 23 respectively;

(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 Particulate [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2(d), particulate from the two (2) coating lines consisting of six (6) spray booths (PB-15, PB-16, PB-17, PB-21, PB-22 and PB-23) are subject to the following:

- (1) The source shall operate the control device in accordance with manufacturer's specifications.
- (2) 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 observations:
  - (A) Repair the control device so that no overspray is visible 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.2.2 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the Permittee shall apply all coating material to coating lines (PB-16, PB-21, PB-22 and PB-23), using one (1) or more of the following application systems:

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

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

**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>	Cabinets by Nichols, Inc.
<b>Address:</b>	40 W Old Plank Rd
<b>City:</b>	Bargersville, Indiana 46106
<b>Phone #:</b>	(317) 422-8031
<b>MSOP #:</b>	M081-30784-00033

I hereby certify that Cabinets by Nichols, Inc. is:

still in operation.

no longer in operation.

I hereby certify that Cabinets by Nichols, Inc. is:

in compliance with the requirements of MSOP M081-30784-00033.

not in compliance with the requirements of MSOP M081-30784-00033.

<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:

---

---

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

Technical Support Document (TSD) for a  
Minor Source Operating Permit Renewal

<b>Source Background and Description</b>
--

<b>Source Name:</b>	Cabinets by Nichols, Inc.
<b>Source Location:</b>	40 W Old Plank Rd (69W SR144), Bargersville, Indiana 46106
<b>County:</b>	Johnson
<b>SIC Code:</b>	2434 (Wood Kitchen Cabinets)
<b>Permit Renewal No.:</b>	M081-30784-00033
<b>Permit Reviewer:</b>	Marcia Earl

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Cabinets by Nichols, Inc. relating to the operation of a stationary wood cabinet manufacturing plant. On August 10, 2011 Cabinets by Nichols, Inc. submitted an application to the OAQ requesting to renew its operating permit. Cabinets by Nichols, Inc. was issued an MSOP M081-22654-00033 on December 12, 2006.

<b>Permitted Emission Units and Pollution Control Equipment</b>
---

The source consists of the following permitted emission units:

- (a) One (1) woodworking facility, identified as WW-1, constructed in 1969, operating at a maximum rate of 171.72 pounds of solid wood per hour and 187.03 pounds of plywood per hour (total 358.75 pounds per hour), utilizing a baghouse (ID #BW-1) for particulate emission control, exhausting back into the building through vent SV ID# 1;
- (b) One (1) flat print coating line, consisting of three (3) spray booths, identified as PB-15, PB-16, and PB-17, constructed in 1986, 1994, and 1974 (after October 7) respectively, each operating at a maximum rate of 360 wooden parts per hour, each equipped with high volume low pressure (HVLP) spray equipment and dry filters for particulate emission control, exhausting through stacks ID# 15, 16, and 17 respectively;
- (c) One (1) spray paint coating line, consisting of three (3) spray booths, identified as PB-21, PB-22, and PB-23, each constructed in 1999, each operating at a maximum rate of 90 wooden parts per hour, each equipped with high volume low pressure (HVLP) spray equipment and dry filters for particulate emission control exhausting through stacks ID # 21, 22, and 23 respectively;
- (d) Natural-gas fired combustion sources with heat input equal to or less than ten (10) MMBtu/hr;
  - (1) Two (2) drying ovens on the spray paint line, each with a maximum heat input capacity of one (1) MMBtu/hr; and
- (e) Replacement or repair of electrostatic precipitators, bags in baghouse, and filter in other air filtration equipment.

**Emission Units and Pollution Control Equipment Removed From the Source**

The source has removed the following emission units:

- (a) Infrared cure equipment
  - (1) One (1) drying oven for flat paint coating line, and

**Existing Approvals**

Since the issuance of the MSOP (M081-22654-00033) on December 12, 2006, the source has constructed or has been operating under the following additional approvals:

- (a) Minor Permit Modification No. 081-24439-00033 issued on April 20, 2007.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

**Air Pollution Control Justification as an Integral Part of the Process**

In October 1993 a Final Order Granting Summary Judgment was signed by an 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 were 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 operations (sanders, polisher, and panel saw) were calculated after consideration of the baghouse controls for purposes of determining permit level. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD) and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), potential particulate matter emissions from the woodworking operations were calculated before consideration of the baghouse controls.

**Enforcement Issue**

There are no enforcement actions pending.

**Emission Calculations**

See Appendix A of this document for detailed emission calculations.

**County Attainment Status**

The source is located in Johnson County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Attainment effective October 19, 2007, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.
<sup>1</sup> Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked	

Pollutant	Designation
	effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for PM <sub>2.5</sub> .

- (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. Johnson 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>**  
 U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Johnson County as nonattainment for PM<sub>2.5</sub>. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a lawsuit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source Review Rule for PM<sub>2.5</sub> promulgated on May 8, 2008. These rules became effective on July 15, 2008. Therefore, direct PM<sub>2.5</sub> and SO<sub>2</sub> emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.
  
- (c) **Other Criteria Pollutants**  
 Johnson County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

**Fugitive Emissions**

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

**Unrestricted Potential Emissions**

This table reflects the unrestricted potential emissions of the source.

Unrestricted Potential Emissions	
Pollutant	Tons/year
PM	56.16
PM <sub>10</sub>	56.21
PM <sub>2.5</sub>	56.17
SO <sub>2</sub>	0.01
VOC	77.48
CO	0.74
NO <sub>x</sub>	0.88
GHGs	1058

Unrestricted Potential Emissions	
Pollutant	Tons/year
Single HAP	8.28 (Xylene)
Total HAP	9.66

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all regulated pollutants, excluding GHGs, is less than 100 tons per year. However, PM and VOC emissions are equal to or greater than twenty-five (25) tons per year. The source is not subject to the provisions of 326 IAC 2-7. Therefore, the source will be issued an MSOP Renewal.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of GHGs is less than one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source will be issued an MSOP Renewal.

**Potential to Emit After Issuance**

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

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM <sub>10</sub> *	PM <sub>2.5</sub> **	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs	Total HAPs	Worst Single HAP
Surface Coating	0.99	0.99	0.99	0.00	0.00	77.43	0.00	0.00	11.63	8.39 Xylene
Woodworking	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas Combustion	0.02	0.07	0.07	0.01	0.88	0.05	0.74	1058	1.65E-02	1.58E-02 Hexane
Paved Roads	0.04	0.05	4.51E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total PTE of Entire Source</b>	<b>1.10</b>	<b>1.15</b>	<b>1.11</b>	<b>0.01</b>	<b>0.88</b>	<b>77.48</b>	<b>0.74</b>	<b>1058</b>	<b>11.63</b>	<b>8.39 Xylene</b>
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO <sub>2</sub> e	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	100,000 CO <sub>2</sub> e	NA	NA
Emission Offset/ Nonattainment NSR Major Source Thresholds	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

negl. = negligible

\*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM<sub>10</sub>), not particulate matter (PM), is considered as a "regulated air pollutant".

\*\*PM<sub>2.5</sub> listed is direct PM<sub>2.5</sub>.

- (a) This existing stationary source is not major for PSD because the emissions of each regulated pollutant, excluding GHGs, are less than two hundred fifty (<250) tons per year, emissions of GHGs are less than one hundred thousand (<100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year, and it is not in one of the twenty-eight (28) listed source categories.

### **Federal Rule Applicability**

#### New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standards for Fossil-Fired Steam Generators For Which Construction Is Commenced After August 17, 1971, 40 CFR, Subpart D (60.40 through 60.46) (326 IAC 12), are not included in this permit because the two (2) drying ovens are not steam generating units.:
- (b) The requirements of the New Source Performance Standard for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, 40 CFR 60, Subpart Da (60.40da through 60.52da) (326 IAC 12), are not included in the permit because the two (2) drying ovens are not steam generating units.
- (c) The requirements of the New Source Performance Standard for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Db (60.40b through 60.49b) (326 IAC 12), are not included in this permit because the two (2) drying ovens are not steam generating units.:
- (d) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (60.40c through 60.48c) (326 IAC 12), are not included in this permit because the two (2) drying ovens are not steam generating units.
- (e) The requirements of the New Source Performance Standard for Surface Coating of Metal Furniture, 40 CFR 60, Subpart EE (40 CFR 60.310 through 60.316) (326 IAC 12), are not included in the permit, since the source does not coat metal furniture. This source coats wood cabinets.
- (f) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.

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

- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Wood Furniture Manufacturing Operations, 40 CFR 63, Subpart JJ (63.800 through 63.808) (326 IAC 20-14), are not included in this permit since this source is not a major source of HAPs as defined in 40 CFR 63.2.
- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Wood Building Products, 40 CFR 63, Subpart QQQQ (63.4670 through 63.4781) (326 IAC 20-79), are not included in this permit since this source does not coat wood building products, this source coats wood cabinets.
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Metal Parts and Products, 40 CFR 63, Subpart MMMM (63.3880 through 63.3981) (326 IAC 20-80), are not included in this permit, since the source does not coat metal parts or products, this source is a wood cabinet manufacturer.
- (j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Plastic Parts and Products, 40 CFR 63, Subpart PPPP (63.4480 through 63.4581) (326 IAC 20-81), are not included in this permit since this source does not coat plastic parts and products, this source coats wood cabinets and is not a major source of HAPs.

- (k) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Miscellaneous Coating Manufacturing, 40 CFR 63, Subpart HHHHH (63.7980 through 63.8105) (326 IAC 20-88), are not included in this permit since the source is not a major source of HAPs.
- (l) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Paint Stripping and Miscellaneous Surface Coating Operations, 40 CFR 63, Subpart HHHHHH (63.11169 through 63.11180) (326 IAC 20), are not included in this permit, since this source does not perform paint stripping using chemical strippers that contain methylene chloride in the removal of dried paint, does not perform spray application of coatings to motor vehicles or mobile equipments, and does not perform spray application of coating that contains chromium, lead, manganese, nickel, or cadmium to a plastic and/or metal substrates.
- (m) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

- (n) 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 - Entire Source</b>
---

326 IAC 1-7 (Stack Height Provisions)

Pursuant to 326 IAC 1-7, the source shall comply with 326 IAC 1-7-3 for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

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

PSD applicability is discussed under the PTE of the Entire Source After Issuance of the FESOP section above.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting) because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is not located in Lake, Porter, or LaPorte County, and its potential to emit lead is less than 5 tons per year. Therefore, this rule does not apply.

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.

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.

### 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.

## State Rule Applicability – Individual Facilities

### Paint Spray Booth

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

Pursuant to 326 IAC 6-3-2(d), particulate from the two (2) coating lines consisting of six (6) spray booth (PB-15, PB-16, PB-17, PB-21, PB-22 and PB-23) equipped with dry filters for particulate control are subject to the following:

- (1) The source shall operate the control device in accordance with manufacturer's specifications.
- (2) 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 observations:
  - (A) Repair the control device so that no overspray is visible 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.

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

- (a) Coating lines, PB-15, and PB-17 are not subject to the provisions of 326 IAC 8-1-6 because each coating line (PB-15 and PB-17) do not have the potential to emit 25 tons of VOC per year. (see Appendix A for the calculations)
- (b) Coating lines PB-16, PB-21, PB-22, and PB-23 are not subject to the provisions of 326 IAC 8-1-6, because they are subject to 326 IAC 8-2-12.

#### 326 IAC 8-2-6 (Metal furniture coating operations)

This source is not subject to this rule, because it does not coat metal furniture. This source coats wood cabinets.

#### 326 IAC 8-2-9 (Miscellaneous metal and plastic parts coating operations)

This source is not subject to this rule, because it does not coat metal or plastic parts. This source coats wood cabinets.

#### 326 IAC 8-2-10 (Flat wood panels; manufacturing operations)

This source is not subject to 326 IAC 8-2-10, because this source does not manufacture printed interior panels made of hardwood plywood and thin particle board. This source manufactures wood cabinets.

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

- (a) Pursuant to 326 IAC 8-2-12(a)(1) (Wood Furniture and Cabinet Coating), coating line PB-17 constructed before January 1, 1980 is not subject to 326 IAC 8-2-12 because the

source is located in Johnson County not Clark, Floyd, Lake or Porter Counties and the source does not have the potential to emit VOC greater than 100 tons per year. There are no other 326 IAC 8 rules that apply.

- (b) Pursuant to 326 IAC 8-2 coating line PB-15 constructed in 1986 and has no applicable requirements in 326 IAC 8-2-12.
- (c) Pursuant to 326 IAC 8-2-12(a)(4), coating line PB-16, PB-21, PB-22 and PB-23, all constructed after 1990 are subject to the provisions of 326 IAC 8-2-12, and shall apply all coating material, using one (1) or more of the following application systems:

- 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.

The flat and the spray paint coating lines will utilize High Volume Low pressure (HVLP) Spray Application systems in order to comply with the requirements of 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating).

#### 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)

Pursuant to 326 IAC 8-7-2(a), this source is not subject to the requirements of 326 IAC 8-7, since it is not located in Lake, Porter, Clark, or Floyd County.

#### 326 IAC 8-11 (Wood Furniture Coating)

This rule applies to existing sources as of January 1, 1980, located in Lake and Marion Counties, with potential to emit (PTE) VOC greater than 100 tons per year not limited by other rules in 326 IAC 8 and sources commencing operation after October 7, 1974, and prior to January 1, 1980, located anywhere in the state, with potential emission of 100 tons or greater of VOC, not limited by other rules in Article 8 (326 IAC 8). This source is located in Johnson County and does not have the potential to emit (PTE) 100 tons or greater of VOC, therefore, the requirements of 326 IAC 8-11 are not applicable to this source.

#### 326 IAC 8-17 (VOC Rules: Industrial Solvent Cleaning Operations)

Pursuant to 326 IAC 8-17-2(a), this source is not subject to the provisions of 326 IAC 8-17 because it is not located in Lake or Porter Counties. Pursuant to 326 IAC 8-17-2(a)(9) this type of a source, a wood furniture coating source, is listed under the exemption categories and therefore, not subject to the requirements of 326 IAC 8-17.

#### Woodworking Operation

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

Pursuant to 326 IAC 6-3-2(e), the particulate from the woodworking operation (WW-1), shall be limited by the following:

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

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

The allowable particulate emission rate from the woodworking operations (WW-1) shall not exceed 1.29 pounds per hour when operating at a process weight rate of 0.179 tons per hour. The baghouse, identified as #BW-1 shall be in operation at all times the woodworking operation is in operation in order to comply with this limit.

Note: The process weight rate is the sum of the 171.72 pound/per hour of solid wood and 187.03 pounds/hour of plywood = 358.75 pounds per hour = 0.179 tons/hour.

The potential to emit (PTE), after controls, of the woodworking operation is 0.0105 pounds per hour, which is less than the allowable rate of 0.179 pounds per hour. Therefore, the woodworking operation (WW-1), is able to comply with this rule

#### Drying Ovens

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

The requirements of 326 IAC 6-2 are not applicable to the drying ovens, because the drying ovens are not indirect heating units as defined in 326 AIC 1-2-19.

#### **Compliance Determination and Monitoring Requirements**

- (a) There is no compliance determination, monitoring applicable to this source.
- (b) There are no testing requirements applicable to this source.

#### **Recommendation**

The staff recommends to the Commissioner that the MSOP Renewal be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on August 10, 2011. Additional information was received on October 17, 2011.

#### **Conclusion**

The operation of this stationary wood cabinet manufacturing source shall be subject to the conditions of the attached MSOP Renewal No. M081-30784-00033.

#### **IDEM Contact**

- (a) Questions regarding this proposed permit can be directed to Marcia Earl 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) 233-0863 or toll free at 1-800-451-6027 extension 3-0863.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>

- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

**Appendix A: Emission Calculations  
Emission Summary**

**Company Name:** Cabinets by Nichols, Inc.  
**Source Address:** 69 West State Road 144, Bargersville, IN 46106  
**Permit No.:** M081-30784-00033  
**Reviewer:** Marcia Earl  
**Date:** August 2011

**Unlimited Potential To Emit In Tons Per Year**

Emission Unit	PM	PM10	PM2.5	SO <sub>2</sub>	NOx	VOC	CO	GHGs as CO <sub>2</sub> e	HAPs	Single Worst Case HAPs	
Surface Coating	9.93	9.93	9.93	0.00	0.00	77.43	0.00	0.00	11.63	8.39	Xylene
Woodworking	46.17	46.17	46.17	0.00	0.00	0.00	0.00	0.00	0.00	--	--
Natural Gas Combustion	0.02	0.07	0.07	0.01	0.88	0.05	0.74	1058	1.65E-02	1.58E-02	Xylene
Unpaved Roads	0.04	0.05	4.51E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
<b>TOTAL</b>	56.16	56.21	56.17	0.01	0.88	77.48	0.74	1058	11.65	8.40	Xylene

**Controlled Potential To Emit In Tons Per Year**

Emission Unit	PM	PM10	PM2.5	SO <sub>2</sub>	NOx	VOC	CO	GHGs as CO <sub>2</sub> e	HAPs	Single Worst Case HAPs	
Surface Coating	0.99	0.99	0.99	0.00	0.00	77.43	0.00	0.00	11.63	8.39	Xylene
Woodworking	0.05	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.00	---	--
Natural Gas Combustion	0.02	0.07	0.07	0.01	0.88	0.05	0.74	1058	1.65E-02	1.58E-02	Hexane
Unpaved Roads	0.04	0.05	4.51E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
<b>Total</b>	1.10	1.15	1.11	0.01	0.88	77.48	0.74	1058	11.65	8.40	Xylene

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

**Company Name:** Cabinets by Nichols, Inc.  
**Address City IN Zip:** 69 West State Road 144, Bargersville, IN 46106  
**Permit No.:** M081-30784-00033  
**Reviewer:** Marcia Earl  
**Date:** August 2011

**PB-15**

Coating Material	Density (Lb/Gal)	Lb VOC/Gal of Coating	Lb Solids / Gal of Coating	Potential Usage (Gal/hr)	Potential Usage (Gal/Yr)	Potential VOC Pounds per Hour	Potential VOC Pounds per Day	Potential VOC Tons per Year	Particulate Potential Ton/Yr	Transfer Efficiency (%)
Primer	9.04	3.58	5.47	0.11	963.60	0.39	9.45	1.72	0.92	65%
Stain	8.08	4.94	3.14	0.24	2102.40	1.19	28.45	5.19	1.16	65%
Catalyst	7.48	6.04	1.45	0.19	1664.40	1.15	27.54	5.03	0.42	65%
Grainstone Reducer	6.83	6.83	0.00	0.05	438.00	0.34	8.20	1.50	0.00	65%
Thinner	6.98	6.98	0.00	0.20	1752.00	1.40	33.50	6.11	0.00	65%
						4.46	107.15	19.55		

**PB-16**

Coating Material	Density (Lb/Gal)	Lb VOC/Gal of Coating	Lb Solids / Gal of Coating	Potential Usage (Gal/hr)	Potential Usage (Gal/Yr)	Potential VOC Pounds per Hour	Potential VOC Pounds per Day	Potential VOC Tons per Year	Particulate Potential Ton/Yr	Transfer Efficiency (%)
Primer	9.04	3.58	5.47	0.02	175.20	0.07	1.72	0.31	0.17	65%
Stain	8.08	4.94	3.14	0.04	350.40	0.20	4.74	0.87	0.19	65%
Catalyst	7.48	6.04	1.45	0.03	262.80	0.18	4.74	0.79	0.07	65%
Grainstone Reducer	6.83	6.83	0.00	0.01	87.60	0.07	1.64	0.30	0.00	65%
Thinner	6.98	6.98	0.00	0.03	262.80	0.21	5.03	0.92	0.00	65%
						0.73	17.47	3.19		

**PB-17**

Coating Material	Density (Lb/Gal)	Lb VOC/Gal of Coating	Lb Solids / Gal of Coating	Potential Usage (Gal/hr)	Potential Usage (Gal/Yr)	Potential VOC Pounds per Hour	Potential VOC Pounds per Day	Potential VOC Tons per Year	Particulate Potential Ton/Yr	Transfer Efficiency (%)
Primer	9.04	3.58	5.47	0.11	963.60	0.39	9.45	1.72	0.92	65%
Stain	8.08	4.94	3.14	0.24	2102.40	1.19	28.45	5.19	1.16	65%
Catalyst	7.48	6.04	1.45	0.19	1664.40	1.15	27.54	5.03	0.42	65%
Grainstone Reducer	6.83	6.83	0.00	0.05	438.00	0.34	8.20	1.50	0.00	65%
Thinner	6.98	6.98	0.00	0.20	1752.00	1.40	33.50	6.11	0.00	65%
						4.46	107.15	19.55		

**PB-21**

Coating Material	Density (Lb/Gal)	Lb VOC/Gal of Coating	Lb Solids / Gal of Coating	Potential Usage (Gal/hr)	Potential Usage (Gal/Yr)	Potential VOC Pounds per Hour	Potential VOC Pounds per Day	Potential VOC Tons per Year	Particulate Potential Ton/Yr	Transfer Efficiency (%)
Primer	9.04	3.58	5.47	0.08	700.80	0.29	6.87	1.25	0.67	65%
Stain	8.08	4.94	3.14	0.18	1576.80	0.89	21.34	3.89	0.87	65%
Catalyst	7.48	6.04	1.45	0.14	1226.40	0.85	3.70	3.70	0.31	65%
Grainstone Reducer	6.83	6.83	0.00	0.04	350.40	0.27	6.56	1.20	0.00	65%
Thinner	6.98	6.98	0.00	0.15	1314.00	1.05	25.13	4.59	0.00	65%
						3.34	80.19	14.64		

**PB-22**

Coating Material	Density (Lb/Gal)	Lb VOC/Gal of Coating	Lb Solids / Gal of Coating	Potential Usage (Gal/hr)	Potential Usage (Gal/Yr)	Potential VOC Pounds per Hour	Potential VOC Pounds per Day	Potential VOC Tons per Year	Particulate Potential Ton/Yr	Transfer Efficiency (%)
Primer	9.04	3.58	5.47	0.11	963.60	0.39	9.45	1.72	0.92	65%
Stain	8.08	4.94	3.14	0.24	2102.40	1.19	28.45	5.19	1.16	65%
Catalyst	7.48	6.04	1.45	0.19	1664.40	1.15	27.54	5.03	0.42	65%
Grainstone Reducer	6.83	6.83	0.00	0.05	438.00	0.34	8.20	1.50	0.00	65%
Thinner	6.98	6.98	0.00	0.20	1752.00	1.40	33.50	6.11	0.00	65%
						4.46	107.15	19.55		

**PB-23**

Coating Material	Density (Lb/Gal)	Lb VOC/Gal of Coating	Lb Solids / Gal of Coating	Potential Usage (Gal/hr)	Potential Usage (Gal/Yr)	Potential VOC Pounds per Hour	Potential VOC Pounds per Day	Potential VOC Tons per Year	Particulate Potential Ton/Yr	Transfer Efficiency (%)
Primer	9.04	3.58	5.47	0.01	87.60	0.04	0.86	0.16	0.08	65%
Stain	8.08	4.94	3.14	0.01	87.60	0.05	1.19	0.22	0.05	65%
Catalyst	7.48	6.04	1.45	0.01	87.60	0.06	1.45	0.26	0.02	65%
Grainstone Reducer	6.83	6.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	65%
Thinner	6.98	6.98	0.00	0.01	87.60	0.07	1.68	0.31	0.00	65%
						0.22	5.17	0.94		

**Potential Emissions (tons/yr) = 77.43      9.93**  
**Controlled Emissions (tons/yr) = 77.43      0.99**

**METHODOLOGY**

VOC Emissions (tons/yr) = Potential Usage (gal/yr) \* Lb VOC/gal Coating \* 1 ton/2,000 lbs  
 PM/PM10/PM2.5 Emissions (tons/yr) = Potential Usage (gal/yr) \* Lb solids/gal Coating \* (1- Transfer Efficiency) \* 1 ton/2,000 lbs  
 90% PM control for dry filters

Appendix A: Emission Calculations  
HAP Emission Calculations

Company Name: Cabinets by Nichols, Inc.  
Address City IN Zip: 69 West State Road 144, Bargersville, IN 46106  
Permit No.: M081-30784-00033  
Reviewer: Marcia Earl  
Date: August 2011

Coating Material	Density (Lb/Gal)	Potential Usage (Gal/Yr)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Methanol	Weight % Ethylbenzene	Weight % DEHP	Weight % Benzene	Weight % Cumene	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	DEHP Emissions (ton/yr)	Benzene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Primer	9.04	963.60	8.22%	0.00%	0.03%	0.00%	0.05%	0.00%	0.00%	0.00%	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
Stain	8.08	2102.40	11.02%	0.38%	0.04%	0.54%	0.09%	0.11%	0.01%	0.01%	0.94	0.03	0.00	0.05	0.01	0.01	0.00	0.22	1.26
Catalyst	7.48	1664.40	1.66%	3.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.10	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.35
Grainstone R	6.83	438.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
Thinner	6.98	1752.00	11%	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69

Coating Material	Density (Lb/Gal)	Potential Usage (Gal/Yr)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Methanol	Weight % Ethylbenzene	Weight % DEHP	Weight % Benzene	Weight % Cumene	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	DEHP Emissions (ton/yr)	Benzene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Primer	9.04	175.20	8.22%	0.00%	0.03%	0.00%	0.05%	0.00%	0.00%	0.00%	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
Stain	8.08	350.40	11.02%	0.38%	0.04%	0.54%	0.09%	0.11%	0.01%	0.01%	0.16	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.17
Catalyst	7.48	262.80	1.66%	3.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Grainstone R	6.83	87.60	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thinner	6.98	262.80	11%	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10

Coating Material	Density (Lb/Gal)	Potential Usage (Gal/Yr)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Methanol	Weight % Ethylbenzene	Weight % DEHP	Weight % Benzene	Weight % Cumene	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	DEHP Emissions (ton/yr)	Benzene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Primer	9.04	963.60	8.22%	0.00%	0.03%	0.00%	0.05%	0.00%	0.00%	0.00%	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
Stain	8.08	2102.40	11.02%	0.38%	0.04%	0.54%	0.09%	0.11%	0.01%	0.01%	0.94	0.03	0.00	0.05	0.01	0.01	1.70	0.00	2.73
Catalyst	7.48	1664.40	1.66%	3.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.10	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.35
Grainstone R	6.83	438.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thinner	6.98	1752.00	11%	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69

Coating Material	Density (Lb/Gal)	Potential Usage (Gal/Yr)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Methanol	Weight % Ethylbenzene	Weight % DEHP	Weight % Benzene	Weight % Cumene	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	DEHP Emissions (ton/yr)	Benzene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Primer	9.04	700.80	8.22%	0.00%	0.03%	0.00%	0.05%	0.00%	0.00%	0.00%	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26
Stain	8.08	1576.80	11.02%	0.38%	0.04%	0.54%	0.09%	0.11%	0.01%	0.01%	0.70	0.00	0.00	0.03	0.01	0.01	0.00	0.00	0.75
Catalyst	7.48	1226.40	1.66%	3.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.08	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.26
Grainstone R	6.83	350.40	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thinner	6.98	1314.00	11%	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52

Coating Material	Density (Lb/Gal)	Potential Usage (Gal/Yr)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Methanol	Weight % Ethylbenzene	Weight % DEHP	Weight % Benzene	Weight % Cumene	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	DEHP Emissions (ton/yr)	Benzene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Primer	9.04	963.60	8.22%	0.00%	0.03%	0.00%	0.05%	0.00%	0.00%	0.00%	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
Stain	8.08	2102.40	11.02%	0.38%	0.04%	0.54%	0.09%	0.11%	0.01%	0.01%	0.94	0.00	0.00	0.05	0.01	0.01	0.00	0.00	1.00
Catalyst	7.48	1664.40	1.66%	3.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.10	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.35
Grainstone R	6.83	438.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thinner	6.98	1752.00	11%	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69

Coating Material	Density (Lb/Gal)	Potential Usage (Gal/Yr)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Methanol	Weight % Ethylbenzene	Weight % DEHP	Weight % Benzene	Weight % Cumene	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Methanol Emissions (ton/yr)	Ethylbenzene Emissions (ton/yr)	DEHP Emissions (ton/yr)	Benzene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Primer	9.04	87.60	8.22%	0.00%	0.03%	0.00%	0.05%	0.00%	0.00%	0.00%	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
Stain	8.08	87.60	11.02%	0.38%	0.04%	0.54%	0.09%	0.11%	0.01%	0.01%	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Catalyst	7.48	87.60	1.66%	3.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Grainstone R	6.83	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thinner	6.98	87.60	11%	0.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03

Potential Emissions (ton/yr) = 8.39 1.04 0.02 0.22 0.04 0.04 1.70 2.63 11.63

METHODOLOGY

HAPS emission rate (ton/yr) = Potential Usage (gal/yr) \* Density (lb/gal) \* wt% HAP \* 1 ton/2,000 lbs

**Appendix A: Woodworking Particulate Emissions**

**Company Name:** Cabinets by Nichols, Inc.  
**Address City IN Zip:** 69 West State Road 144, Bargersville, IN 46106  
**Permit No.:** M081-30784-00033  
**Reviewer:** Marcia Earl  
**Date:** August 2011

Uncontrolled Potential Emissions (tons/year)							
A. Baghouse (#BW-1)							
Process	PM/PM10/PM2.5 Delivered to Baghouse (lb/day)		Control Efficiency (%)	Potential PM/PM10/PM2.5 Emissions			
				Uncontrolled		Controlled	
	Actual	Potential		(lb/day)	(tons/yr)	(lb/day)	(tons/yr)
WW-1	50.00	253.00	99.90%	253.00	46.17	0.25	0.05

NOTE: Actual PM/PM10/PM2.5 emissions delivered to the baghouse per day was determined by measuring the amount of PM collected from the dust collector during a normal operating day (8 hours). Potential PM/PM10/PM2.5 generated per day was determined by scaling up actual emissions to 8,760 hours per year and including a 20% safety factor. Calculations are from MSOP 081-22654-00033, issued December 12, 2006.

Total Emissions Based on Rated Capacity at 8,760 Hours/Year

Methodology:

Potential PM/PM10/PM2.5 Emissions = Actual PM/PM10/PM2.5 Delivered to

Controlled PM/PM10/PM2.5 Emissions (lb/yr) = Uncontrolled PM/PM10/PM2.5 emissions (lbs/day) \* (1- Control Efficiency)

Controlled PM/PM10/PM2.5 Emissions (tons/yr) = Controlled PM/PM10/PM2.5 emissions (lbs/day) \* 365/ 1 tons (2,000 lbs)

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

**Two (2) Drying Ovens (1 MMBtu/hr Each)**

**Company Name:** Cabinets by Nichols, Inc.  
**Address City IN Zip:** 69 West State Road 144, Bargersville, IN 46106  
**Permit No.:** M081-30784-00033  
**Reviewer:** Marcia Earl  
**Date:** August 2011

Heat Input Capacity                      Potential Throughput  
MMBtu/hr                                      MMCF/yr

2.00	17.52
------	-------

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.02	0.07	0.07	0.01	0.88	0.05	0.74

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

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

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

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

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

**Two (2) Drying Ovens (1 MMBtu/hr Each)**

**Company Name:** Cabinets by Nichols, Inc.  
**Address City IN Zip:** 69 West State Road 144, Bargersville, IN 46106  
**Permit No.:** M081-30784-00033  
**Reviewer:** Marcia Earl  
**Date:** August 2011

Heat Input Capacity                      Potential Throughput  
MMBtu/hr                                      MMCF/yr

2.00	17.52
------	-------

HAPs - 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
Potential Emission in tons/yr	1.84E-05	1.05E-05	6.57E-04	1.58E-02	2.98E-05

HAPs - 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
Potential Emission in tons/yr	4.38E-06	9.64E-06	1.23E-05	3.33E-06	1.84E-05

Total HAPs    **1.65E-02**

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

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

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

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

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

**Company Name:** Cabinets by Nichols, Inc.  
**Source Address:** 69 West State Road 144, Bargersville, IN 46106  
**Permit No.:** M081-30784-00033  
**Reviewer:** Marcia Earl  
**Date:** August 2011

Heat Input Capacity  
MMBtu/hr  
2.00

HHV  
mmBtu/mmscf  
1000

Potential Throughput  
MMCF/yr  
17.52

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120000	2.3	2.2
Potential Emission in tons/yr	1051.20	0.02	0.02
Summed Potential Emissions in tons/yr	1051		
CO2e Total in tons/yr	1058		

**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, 1-030006-03 and 1-03-006-03  
Greenhouse 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).

Company Name: Cabinets by Nichols, Inc.  
Address City IN Zip: 69 West State Road 144, Bargersville, IN 46106  
Permit Number: M081-30784-00033  
Reviewer: Marcia Earl  
Date: August 2011

**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)
Passanger Vehicles	8.0	2.0	16.0	2.5	40.0	200	0.038	0.61	221.21
Semi Truck	1.0	2.0	2.0	40.0	80.0	25	0.005	0.01	3.46
			0.0		0.0		0.000	0.0	0.0
			0.0		0.0		0.000	0.0	0.0
<b>Totals</b>			<b>18.0</b>		<b>120.0</b>			<b>0.6</b>	<b>224.7</b>

Vehicle Weight Per Trip = 6.7 tons/trip  
Average Miles Per Trip = 0.03 miles/trip

Emission Factor,  $E_f = k \cdot [(s/12)^a] \cdot [(W/3)^b]$  (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 =	1.0	1.0	1.0	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,  $E_{ext} = E \cdot [(365 - P)/365]$  (Equation 2 from AP-42 13.2.2)

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

	PM	PM10	PM2.5	
Emission Factor, $E_f$ =	0.39	0.40	0.04	lb/mile
Mitigation Factor, $E_{ext}$ =	0.25	0.26	0.03	lb/mile
Dust Control Efficiency =				

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)
Passanger Vehicles	0.04	0.04	4.44E-03	0.03	0.03	4.44E-03
Semi Truck	6.69E-04	6.93E-04	6.93E-05	4.40E-04	4.56E-04	4.56E-05
	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00
<b>Totals</b>	<b>0.04</b>	<b>0.05</b>	<b>4.51E-03</b>	<b>0.03</b>	<b>0.03</b>	<b>4.48E-03</b>

**Methodology**

Total Weight driven per day = [Maximum Weight Loaded (tons/trip)] \* [Maximum trips per day (trip/day)]  
 Maximum one-way distance = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
 Maximum one-way miles = [Maximum trips per year (trip/day)] \* [Maximum one-way distance (mi/trip)]  
 Average Vehicle Weight = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]  
 Average Miles Per 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



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
**Governor**

*Thomas W. Easterly*  
**Commissioner**

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

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

**TO:** Cindi Pond  
Cabinets By Nichols, Inc.  
PO Box 545  
Bargersville, IN 46106

**DATE:** December 28, 2011

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

**SUBJECT:** Final Decision  
MSOP  
081-30784-00033

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:  
Holli Argiris (ERM)  
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 11/30/07



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
**Governor**

*Thomas W. Easterly*  
**Commissioner**

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

December 28, 2011

TO: Johnson County Public Library

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

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

**Applicant Name: Cabinets by Nichols, Inc.**  
**Permit Number: 081-30784-00033**

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 11/30/07

# Mail Code 61-53

IDEM Staff	CDENNY 12/28/2011 Cabinets By Nichols, Inc. 081-30784-00033 (final)		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	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		

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		Cindi Pond Cabinets By Nichols, Inc. PO Box 545 Bargersville IN 46106 (Source CAATS)										
2		Robert Nichols Jr President Cabinets By Nichols, Inc. PO Box 545 Bargersville IN 46106 (RO CAATS)										
3		Johnson County Commissioners 5 East Jefferson Franklin IN 46131 (Local Official)										
4		Johnson County Health Department 86 W. Court St, Courthouse Annex Franklin IN 46131-2345 (Health Department)										
5		Frederick & Iva Moore 6019 W 650 N Ligonier IN 46767 (Affected Party)										
6		Larry and Becky Bischoff 10979 North Smokey Row Road Mooresville IN 46158 (Affected Party)										
7		Bargersville Town Council P.O. Box 420 Bargersville IN 46106 (Local Official)										
8		Franklin City Council & Mayors Office 701 E Monroe St Franklin IN 46131 (Local Official)										
9		Johnson County Public Library 530 Tracey Road Suite 250 New Whiteland IN 46184 (Library)										
10		Holly Argiris ERM Fidelity Plaza Tower Two 11350 Carmel IN 46032 (Consultant)										
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.
---	--	--	--