

Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence

Carol S. Comer Commissioner

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a Minor Source Operating Permit (MSOP)

for Ayr Custom Cabinetry, Inc. in Marshall County

MSOP No.: M099-37519-00070

The Indiana Department of Environmental Management (IDEM) has received an application from Ayr Custom Cabinetry, Inc. located at 1074 US Highway 6, Nappanee, Indiana 46550 for a transition of its FESOP, issued on December 27, 2006 to an MSOP. If approved by IDEM's Office of Air Quality (OAQ), this proposed renewal would allow Ayr Custom Cabinetry, Inc. to continue to operate its existing source.

This draft MSOP does not contain any new equipment that would emit air pollutants; however, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes. This notice fulfills the public notice procedures to which those conditions are subject. IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow for these changes.

A copy of the permit application and IDEM's preliminary findings are available at:

Bremen Public Library 304 N. Jackson St. Bremen, IN 46506

and

IDEM Northern Regional Office 300 N. Michigan Street, Suite 450 South Bend, IN 46601-1295

A copy of the preliminary findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.



Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number M099-37519-00070 in all correspondence.

Comments should be sent to:

Allen Reimer IDEM, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251 (800) 451-6027, ask for extension 3-0863 Or dial directly: (317) 233-0863 Fax: (317) 232-6749 attn: Allen Reimer E-mail: acreimer@idem.IN.gov

cents will be considered by IDEM when we make

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, at the IDEM Regional Office indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Allen Reimer of my staff at the above address.

Nathan C. Bell, Section Chief Permits Branch

Office of Air Quality



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Michael R. Pence



Carol S. Comer Commissioner

Minor Source Operating Permit OFFICE OF AIR QUALITY

Ayr Custom Cabinetry, Inc. 1074 US Highway 6 Nappanee, Indiana 46550

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

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

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No. M099-37519-00070	
Issued by:	Issuance Date:
Nathan C. Bell, Section Chief Permits Branch Office of Air Quality	Expiration Date:



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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 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 kitchen cabinet and countertop manufacturing source.

Source Address: 1074 US Highway 6, Nappanee, Indiana 46550

General Source Phone Number: 574-773-7973

SIC Code: 2434 County Location: Marshall

Source Location Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit Program

Minor Source, under PSD and Emission Offset Rules

Minor Source, Section 112 of the Clean Air Act

Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) Three (3) cabinet coating booths, identified as Booths 1 through 3, constructed in 1975, with a maximum capacity of two (2) cabinets per hour, each, each applying sealer, stain, and topcoat, equipped with HVLP spray applicators and dry filters for overspray control, exhausting through Stacks V1-V8 and V11-V13.
- (b) One (1) cabinet coating booth, identified as Booth 4, constructed in 1981, with a maximum capacity of two (2) cabinets per hour, applying sealer, stain, and topcoat, equipped with HVLP spray applicators and dry filters for overspray control, exhausting through Stacks V1-V8 and V11-V13.
- (c) One (1) cabinet coating booth, identified as Booth 5, constructed in 2005, with a maximum capacity of two (2) cabinets per hour, applying sealer, stain, and topcoat, equipped with HVLP spray applicators and dry filters for overspray control, exhausting through Stacks V1-V8 and V11-V13.
- (d) Two (2) countertop coating booths, identified as Countertop Booths 1 and 2, constructed in 1990, with a maximum capacity of 0.625 wood countertops per hour, total, equipped with HVLP spray applicators and dry filters for overspray control, exhausting through Stacks V9 and V10.
- (e) One (1) woodworking area, identified as Woodworking Area 1, constructed in 1968, consisting of saws, routers, sanders, joiners, shapers. and various hand-held power tools, with a combined maximum process weight rate of 688 pounds per hour, equipped with one (1) baghouse for particulate control, identified as P1, exhausting indoors or outdoors.
- (f) One (1) woodworking area, identified as Woodworking Area 2, constructed in 1990, consisting of one (1) router, three (3) saws, and various hand-held power tools, with a combined maximum process weight rate of 688 pounds per hour, equipped with one (1) baghouse for particulate control, identified as P2, exhausting indoors or outdoors.



- (g) Woodworking equipment, identified as Miscellaneous Woodworking Equipment, consisting of saws, sanders, routers, and lathes, constructed in 2011, permitted in 2016, with a combined maximum process weight rate of four-hundred (400) pounds per hour, uncontrolled, exhausting indoors or outdoors.
- (h) The following natural gas-fired combustion facilities with heat input equal to or less than ten million (10,000,000) British thermal units per hour:
 - (1) Three (3) furnaces, with a maximum heat input capacity of 3.0 million British thermal units per hour, each.
- (i) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.
- (j) Paved and unpaved roads and parking lots with public access.



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, M099-37519-00070, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

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

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.

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(b) The annual notice shall be submitted in the format attached no later than March 1 of each vear 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) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The Permittee shall implement the PMPs.

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

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

- (a) All terms and conditions of permits established prior to M099-37519-00070 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

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(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:

- 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.

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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. The analog instrument shall be capable of measuring values outside of the normal range.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps

C.12 Response to Excursions or Exceedances

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

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

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

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

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

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

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

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

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

(a) Reports required by conditions in Section D of this permit shall be submitted to:

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

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due. (c) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

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SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) Three (3) cabinet coating booths, identified as Booths 1 through 3, constructed in 1975, with a maximum capacity of two (2) cabinets per hour, each, each applying sealer, stain, and topcoat, equipped with HVLP spray applicators and dry filters for overspray control, exhausting through Stacks V1-V8 and V11-V13.
- (b) One (1) cabinet coating booth, identified as Booth 4, constructed in 1981, with a maximum capacity of two (2) cabinets per hour, applying sealer, stain, and topcoat, equipped with HVLP spray applicators and dry filters for overspray control, exhausting through Stacks V1-V8 and V11-V13.
- (c) One (1) cabinet coating booth, identified as Booth 5, constructed in 2005, with a maximum capacity of two (2) cabinets per hour, applying sealer, stain, and topcoat, equipped with HVLP spray applicators and dry filters for overspray control, exhausting through Stacks V1-V8 and V11-V13.

(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 Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(d), the source shall comply with the following:

- (a) The cabinet coating booths (Booth 1 through Booth 5) shall be controlled by dry particulate filters, and the source shall operate the filters in accordance with manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the dry particulate filters and do either of the following no later than four (4) hours after such observation:
 - (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (c) 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 of the control device, or change in the operations, so that the overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

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

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), when applying surface coatings to wood furniture or wood cabinets in the cabinet coating booth (Booth 5), the Permittee shall apply all coating material, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, using one (1) or more of the following application methods:

Airless Spray Application Air Assisted Airless Spray Application Electrostatic Spray Application

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

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

D.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventative 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.

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

D.1.4 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.1(c), the Permittee shall maintain a record of any actions taken if overspray is visibly detected.
- (b) To document the compliance status with Condition D.1.2, the Permittee shall maintain records of the amount of coating used for touch-up and repair operations per day.
- (c) Section C General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (e) One (1) woodworking area, identified as Woodworking Area 1, constructed in 1968, consisting of saws, routers, sanders, joiners, shapers. and various hand-held power tools, with a combined maximum process weight rate of 688 pounds per hour, equipped with one (1) baghouse for particulate control, identified as P1, exhausting indoors or outdoors.
- (f) One (1) woodworking area, identified as Woodworking Area 2, constructed in 1990, consisting of one (1) router, three (3) saws, and various hand-held power tools, with a combined maximum process weight rate of 688 pounds per hour, equipped with one (1) baghouse for particulate control, identified as P2, exhausting indoors or outdoors.

(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 Control [326 IAC 6-3-2]

In order to assure that the two (2) woodworking areas are exempt from the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the baghouses (P1 and P2) shall be in operation and control emissions from the two (2) woodworking areas (Woodworking Area 1 and Woodworking Area 2) at all times that any one or more of these units are in operation.

D.2.2 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 Registrant's obligation with regard to the preventive maintenance plan required by this condition.

Ayr Custom Cabinetry, Inc. Nappanee, Indiana Permit Reviewer: Allen Reimer

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).

Company Name:	Ayr Custom Cabinetry, Inc.	
Address:	1074 US Highway 6	
City:	Nappanee, Indiana 46550	
Phone #:	574-773-7973	
MSOP #:	M099-37519-00070	
I hereby certify that Ayı	r Custom Cabinetry, Inc. is :	□ still in operation.□ no longer in operation.
I hereby certify that Ayı	r Custom Cabinetry, Inc. is :	☐ in compliance with the requirements of MSOP M099-37519-00070.
		□ not in compliance with the requirements of MSOP M099-37519-00070.
Authorized Individua	al (typed):	
Title:		
Signature:		
Date:		
		source is not in compliance, provide a narrative ance and the date compliance was, or will be
Noncompliance:		

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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/YEAP 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 CARBON MONOXIDE?, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT?, 25 TONS/YEAR 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 APPL LIMITATION	FUR /YEAR ANY
THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC OR, PERMIT CONDITION # AND/OI PERMIT LIMIT OF	3
THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y	
THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT?	N
COMPANY:PHONE NO. ()	
COMPANY:PHONE NO. () LOCATION: (CITY AND COUNTY) PERMIT NOAFS PLANT ID:AFS POINT ID:INSP:	
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:	_
DATE/TIME MALFUNCTION STARTED:// 20	
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 <u>ESSENTIAL</u> * 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	

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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 Federally Enforceable State Operating Permit (FESOP) Transitioning to a Minor Source Operating Permit (MSOP)

Source Description and Location

Source Name: Ayr Custom Cabinetry, Inc.

Source Location: 1074 US Highway 6, Nappanee, Indiana 46550

County: Marshall

SIC Code: 2434 (Wood Kitchen Cabinets)

Operation Permit No.: M099-37519-00070
Permit Reviewer: Allen Reimer

The Office of Air Quality (OAQ) has reviewed an application, submitted by Ayr Custom Cabinetry, Inc. on August 15, 2016, relating to the operation of an existing stationary wood kitchen cabinet and countertop manufacturing source. The source had been operating under a Federally Enforceable State Operating Permit (FESOP), but will transition to a Minor Source Operating Permit (MSOP) due to changes in operation. No new equipment has been constructed since the issuance of FESOP Renewal No. F099-22315-00070, issued on December 27, 2006.

Existing Approvals

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

- (a) FESOP Renewal No. F099-22315-00070, issued on December 27, 2006.
- (b) Administrative Amendment No. 099-25701-00070, issued on January 18, 2008.

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

County Attainment Status

The source is located in Marshall County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹
PM _{2.5}	Unclassifiable or attainment effective April 5, 2005, for the annual PM _{2.5} standard.
PM _{2.5}	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard.
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.
¹ Unclassifiable	or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective
June 15, 2005.	

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Marshall County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Ayr Custom Cabinetry, Inc.
Nappanee, Indiana
Permit Reviewer: Allen Reimer

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- PM_{2.5}
 Marshall County has been classified as attainment for PM_{2.5}. Therefore, direct PM_{2.5},
 SO₂, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Other Criteria Pollutants

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

Fugitive Emissions

- (a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.
- (b) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Background and Description of Permitted Emission Units

The Office of Air Quality (OAQ) has reviewed an application, submitted by Ayr Custom Cabinetry, Inc. on August 15, 2016, relating to the operation of an existing stationary wood kitchen cabinet and countertop manufacturing source. The source had been operating under a Federally Enforceable State Operating Permit (FESOP), but will transition to a Minor Source Operating Permit (MSOP) due to changes in operation. No new equipment has been constructed since the issuance of FESOP Renewal No. F099-22315-00070, issued on December 27, 2006.

The source consists of the following permitted emission units:

- (a) Three (3) cabinet coating booths, identified as Booths 1 through 3, constructed in 1975, with a maximum capacity of two (2) cabinets per hour, each, each applying sealer, stain, and topcoat, equipped with HVLP spray applicators and dry filters for overspray control, exhausting through Stacks V1-V8 and V11-V13.
- (b) One (1) cabinet coating booth, identified as Booth 4, constructed in 1981, with a maximum capacity of two (2) cabinets per hour, applying sealer, stain, and topcoat, equipped with HVLP spray applicators and dry filters for overspray control, exhausting through Stacks V1-V8 and V11-V13.
- (c) One (1) cabinet coating booth, identified as Booth 5, constructed in 2005, with a maximum capacity of two (2) cabinets per hour, applying sealer, stain, and topcoat, equipped with HVLP spray applicators and dry filters for overspray control, exhausting through Stacks V1-V8 and V11-V13.
- (d) Two (2) countertop coating booths, identified as Countertop Booths 1 and 2, constructed in 1990, with a maximum capacity of 0.625 wood countertops per hour, total, equipped with HVLP spray applicators and dry filters for overspray control, exhausting through Stacks V9 and V10.
- (e) One (1) woodworking area, identified as Woodworking Area 1, constructed in 1968, consisting of saws, routers, sanders, joiners, shapers. and various hand-held power tools, with a combined maximum process weight rate of 688 pounds per hour, equipped with one (1) baghouse for particulate control, identified as P1, exhausting indoors or outdoors.

Permit Reviewer: Allen Reimer

(f) One (1) woodworking area, identified as Woodworking Area 2, constructed in 1990, consisting of one (1) router, three (3) saws, and various hand-held power tools, with a combined maximum process weight rate of 688 pounds per hour, equipped with one (1) baghouse for particulate control, identified as P2, exhausting indoors or outdoors.

- (g) Woodworking equipment, identified as Miscellaneous Woodworking Equipment, consisting of saws, sanders, routers, and lathes, constructed in 2011, permitted in 2016, with a combined maximum process weight rate of four-hundred (400) pounds per hour, uncontrolled, exhausting indoors or outdoors.
- (h) The following natural gas-fired combustion facilities with heat input equal to or less than ten million (10,000,000) British thermal units per hour:
 - (1) Three (3) furnaces, with a maximum heat input capacity of 3.0 million British thermal units per hour, each.
- (i) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.
- (j) Paved and unpaved roads and parking lots with public access.

Air Pollution Control Justification as an Integral Part of the Process

In October 1993 a Final Order Granting Summary Judgment was signed by Administrative Law Judge ("ALJ") Garrettson resolving an appeal filed by Kimball Hospitality Furniture Inc. (Cause Nos. 92-A-J-730 and 92-A-J-833) related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls are necessary for the facility to produce its normal product and are integral to the normal operation of the facility, and therefore, potential emissions should be calculated after controls. Based on this ruling, the potential to emit particulate matter from the woodworking operations were calculated after consideration of the controls for determining operating permit level and for determining the applicability of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and Prevention of Significant Deterioration (PSD).

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – MSOP

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

Ayr Custom Cabinetry, Inc. Nappanee, Indiana Permit Reviewer: Allen Reimer

Pollutant	Potential To Emit (tons/year)					
PM	10.73 6.68					
PM10 ⁽¹⁾	6.68					
PM2.5	5.43					
SO ₂	0.02					
NO _x	3.86					
VOC	36.54					
CO	3.25					
Worst Single HAP	7.99 Toluene					
Total HAPs	15.48					

- (1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10) and particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers (PM2.5), not particulate matter (PM), are each considered as a "regulated air pollutant".
- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of VOC is less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit for the natural gas-fired units at this source, because they have maximum heat input capacities of less than ten (10) million British thermal units per hour (MMBtu/hr), each, and are not steam generating units as defined in §60.41c.
- (b) The requirements of the New Source Performance Standards of Performance for Surface Coating of Metal Furniture, 40 CFR 60, Subpart EE (326 IAC 12), are not included in the permit, since this source does not perform surface coating of metal furniture as defined in §60.310(a).
- (c) The requirements of the New Source Performance Standards for Industrial Surface Coating: Large Appliances, 40 CFR 60, Subpart SS (326 IAC 12), are not included in the permit, since this source does not apply surface coatings to large appliances as defined in §60.451.
- (d) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Halogenated Solvent Cleaning, 40 CFR 63, Subpart JJ (326 IAC 20-14), are not included in the permit, since, although this source is engaged, either in part or in whole, in the manufacture of wood furniture or wood furniture components as defined in §63.801, and this source is not located at a major source of HAPs as defined in §63.2.

Ayr Custom Cabinetry, Inc.

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Nappanee, Indiana

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(f) The requirements of the National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products, 40 CFR 63, Subpart DDDD (326 IAC 20), are not included in the permit, since this source does not manufacture plywood and composite wood products as defined in §63.2292 and this source is not located at a major source of HAPs as defined in §63.2.

- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63, Subpart MMMM (326 IAC 20-80), are not included in the permit, since this source does not coat miscellaneous metal parts and products as defined in §63.3881 and this source is not located at a major source of HAPs as defined in §63.2.
- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products, 40 CFR 63, Subpart PPPP (326 IAC 20-81), are not included in the permit, since this source does not coat plastic parts and products as defined in §63.4481 and this source is not located at a major source of HAPs as defined in §63.2.
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Wood Building Products, 40 CFR 63, Subpart QQQQ (326 IAC 20-79), are not included in the permit, since this source does not coat wood building products as defined in §63.4781 and this source is not located at a major source of HAPs as defined in §63.2.
- (j) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Metal Furniture, 40 CFR 63, Subpart RRRR (326 IAC 20-78), are not included in the permit, since this source does not coat metal furniture as defined in §63.4981 and this source is not located at a major source of HAPs as defined in §63.2.
- (k) The requirements of the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD (326 IAC 20-95), are not included in the permit for the natural gas-fired units, since these units are not industrial, commercial, or institutional boilers or process heaters as defined in §63.7575 and this source is not located at a major source of HAPs as defined in §63.2.
- (I) The requirements of the National Emission Standards for Hazardous Air Pollutants for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63, Subpart HHHHHHH (326 IAC 20), are not included in the permit, since, although this source is an area source of HAPs, this source does not have paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl) in paint removal processes, the source does not have autobody refinishing operations, and the source does not spray apply coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), collectively referred to as the target HAP to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment.
- (m) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ (326 IAC 20), are not included in the permit for the natural gas-fired combustion facilities, since, although this source is an area source of HAPs as defined in §63.2, each of the natural gas-fired combustion facilities is not considered an industrial, commercial, or institutional boiler as defined in §63.11237.
- (n) 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)

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

State Rule Applicability Determination

The following state rules are applicable to the source:

- (a) 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))
 MSOP applicability is discussed under the Permit Level Determination MSOP section above.
- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))

 This existing source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit all PSD regulated pollutants are less than 250 tons per year and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
 The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (d) 326 IAC 2-6 (Emission Reporting)
 Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (e) 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.
- (f) 326 IAC 6.5 (PM Limitations Except Lake County) This source is not subject to the requirements of 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.
- (g) 326 IAC 6.8 (PM Limitations for Lake County) This source is not subject to the requirements of 326 IAC 6.8 because it is not located in Lake County.
- (h) 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.
- (i) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

 The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year.

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(j) 326 IAC 12 (New Source Performance Standards) See Federal Rule Applicability Section of this TSD.

(k) 326 IAC 20 (Hazardous Air Pollutants)See Federal Rule Applicability Section of this TSD.

Cabinet Coating Booths

- (I) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 - (1) Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3-2 are applicable to the five (5) cabinet coating booths (Booth 1 through Booth 5), because they apply surface coating using methods not specifically exempted in 326 IAC 6-3-1(b) and use more than five (5) gallons of coatings per day. Pursuant to 326 IAC 6-3-2(d), the source shall comply with the following:
 - (A) The cabinet coating booths (Booth 1 through Booth 5) shall be controlled by dry particulate filters, and the source shall operate the filter in accordance with manufacturer's specifications.
 - (B) If overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the dry particulate filters and do either of the following no later than four (4) hours after such observation:
 - (i) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (ii) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (C) 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 of the control device, or change in the operations, so that the overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.
 - (2) Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are not applicable to the two (2) countertop coating booths (Countertop Booth 1 and Countertop Booth 2), since, although they apply surface coating using methods not specifically exempted in 326 IAC 6-3-1(b), they do not use more than five (5) gallons of coating per day.
- (m) 326 IAC 8-1-6 (New Facilities, General Reduction Requirements)
 - (1) Pursuant to 326 IAC 8-1-6(3)(A), the requirement to reduce VOC emissions using the Best Available Control Technology (BACT) does not apply to the one (1) cabinet coating booth (Booth 5), because it is subject to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating).
 - (2) Pursuant to 326 IAC 8-1-6(1), the requirement to reduce VOC emissions using the Best Available Control Technology (BACT) does not apply to the four (4) cabinet coating booths (Booth 1 through Booth 4) and two (2) countertop coating booths (Countertop Booth 1 and Countertop Booth 2), since they each do not have potential VOC emissions of twenty-five (25) tons or more per year.
- (n) 326 IAC 8-2-9 (VOC Rules: Miscellaneous Metal and Plastic Parts Coating)
 Pursuant to 326 IAC 8-2-9(a), the five (5) cabinet coating booths (Booth 1 through Booth 5) and the two (2) countertop coating booths (Countertop Booth 1 and Countertop Booth 2) are each not subject to the requirements of 326 IAC 8-2-9, since they do not perform metal and plastic surface coating of the types listed in 326 IAC 8-2-9(a)(2). This source performs surface coating of wood kitchen cabinets and countertops.

- (o) 326 IAC 8-2-10 (VOC Rules: Flat Wood Panels; Manufacturing Operations) Pursuant to 326 IAC 8-2-10(a), the requirements of 326 IAC 8-2-10 are not applicable to the five (5) cabinet coating booths (Booth 1 through Booth 5) and the two (2) countertop coating booths (Countertop Booth 1 and Countertop Booth 2), since the source does not manufacture flat wood panels.
- (p) 326 IAC 8-2-12 (VOC Rules: Wood Furniture and Cabinet Manufacturing) This rule applies to facilities located in any county, constructed after July 1, 1990, that perform surface coating of wood furniture (or wood furniture components), including cabinets (kitchen, bath, and vanity), tables, beds, chairs, sofas (nonupholstered), art objects, and any other coated furnishings made of solid wood, wood composition, or simulated wood material and which have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls.
 - (1) Pursuant to 326 IAC 8-2-1(a)(4), the requirements of 326 IAC 8-2-12 are not applicable to the four (4) cabinet coating booths (Booth 1 through Booth 4), since each was not constructed before July 1, 1990. Booth 1 through Booth 3 were constructed in 1975 and Booth 4 was constructed in 1981.
 - (2) Pursuant to 326 IAC 8-2-1(a)(4), the requirements of 326 IAC 8-2-12 are not applicable to the two (2) countertop coating booths (Countertop Booth 1 and Countertop Booth 2), since each does not have potential VOC emissions of greater than fifteen (15) pounds per day before add-on controls.
 - (3) Pursuant to 326 IAC 8-2-1(a)(4), the requirements of 326 IAC 8-2-12 are applicable to the one (1) cabinet coating booth (Booth 5), since it was constructed after July 1, 1990, and it has potential VOC emissions of greater than fifteen (15) pounds per day.

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), when applying surface coatings to wood furniture or wood cabinets in the cabinet coating booth (Booth 5), the Permittee shall apply all coating material, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, using one (1) or more of the following application methods:

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

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

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

(q) 326 IAC 8-11 (VOC Rules: Wood Furniture Coatings)
 Pursuant to 326 IAC 8-11(1), the five (5) cabinet coating booths (Booth 1 through Booth 5) and the two (2) countertop coating booths (Countertop Booth 1 and Countertop Booth 2) are each not

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subject to the requirements of 326 IAC 8-11, since the source is not located in Lake, Porter, Clark, or Floyd Counties. This source is located in Marshall County.

(r) There are no other 326 IAC 8 Rules that are applicable to the five (5) cabinet coating booths (Booth 1 through Booth 5) and two (2) countertop coating booths (Countertop Booth 1 and Countertop Booth 2).

Woodworking Operations

- (s) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 - (1) Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are not applicable to the two (2) woodworking areas (Woodworking Area 1 and Woodworking Area 2), since each has potential particulate emissions after integral woodworking controls of less than five hundred fifty-one thousandths (0.551) pound per hour.

In order to assure that these units are exempt from the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the baghouses (P1 and P2) shall be in operation and control emissions from the two (2) woodworking areas (Woodworking Area 1 and Woodworking Area 2) at all times that any one or more of these units are in operation.

(2) Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are not applicable to the woodworking equipment, since it has potential particulate emissions of less than five hundred fifty-one thousandths (0.551) pound per hour.

Natural Gas-Fired Units

- (t) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
 Pursuant to 326 IAC 6-2-1(a), the requirements of 326 IAC 6-2 are not applicable to the three (3) furnaces, since each unit is not a source of indirect heat.
- (u) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3 are not applicable to the three (3) furnaces, since they each are not a "manufacturing process" as defined in 326 IAC 6-3-1.5.
- (v) 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)
 Pursuant to 326 IAC 7-1.1-1, the three (3) furnaces are not subject to the requirements of 326 IAC 7-1.1, since they have unlimited sulfur dioxide (SO₂) emissions less than twenty-five (25) tons per year and ten (10) pounds per hour respectively, each.
- (w) 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) The three (3) furnaces are each not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each emission unit is less than twenty-five (25) tons per year.

Water Based Adhesive Operation

- (x) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
 Pursuant to 326 IAC 6-3-1(a)(7), the requirements of 326 IAC 6-3 are not applicable to the water based adhesives operation, since it uses flow coating, which is specifically exempted.
- (y) 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) Pursuant to 326 IAC 8-1-6(1), the requirements of 326 IAC 8-1-6 are not applicable to the water based adhesives operation, since it does not have potential emissions of VOC of twenty-five (25) tons or more per year.

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- (z) 326 IAC 8-2-5 (VOC Rules: Paper Coating Operations)
 Pursuant to 326 IAC 8-2-5(a), the requirements of 326 IAC 8-2-5 are not applicable to the water based adhesives operation, since it does not perform surface coating of paper. This unit coats wood cabinets and countertops.
- (aa) 326 IAC 8-2-9 (VOC Rules: Miscellaneous Metal and Plastic Parts Coating)
 Pursuant to 326 IAC 8-2-9(a), the requirements of 326 IAC 8-2-9 are not applicable to the water based adhesives operation, since it does not perform surface coating of miscellaneous metal and plastic parts. This unit coats wood cabinets and countertops.
- (bb) 326 IAC 8-2-12 (VOC Rules: Wood Furniture and Cabinet Manufacturing)
 This rule applies to facilities located in any county, constructed after July 1, 1990, that perform surface coating of wood furniture (or wood furniture components), including cabinets (kitchen, bath, and vanity), tables, beds, chairs, sofas (nonupholstered), art objects, and any other coated furnishings made of solid wood, wood composition, or simulated wood material and which have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls.

 Pursuant to 326 IAC 8-2-1(a)(4), the requirements of 326 IAC 8-2-12 are not applicable to the water based adhesives operation, since, although this unit was constructed after July 1, 1990 and it will apply coatings to wood furniture (or wood furniture components), it does not have potential VOC emissions of greater than fifteen (15) pounds of VOC per day.
- (cc) 326 IAC 8-11 (VOC Rules: Wood Furniture Coatings) Pursuant to 326 IAC 8-11(1), the requirements of 326 IAC 8-11 are not applicable to the water based adhesives operation, since the source is not located in Lake, Porter, Clark, or Floyd Counties. This source is located in Marshall County.
- (dd) 326 IAC 8-22 (VOC Rules: Miscellaneous Industrial Adhesives) Pursuant to 326 IAC 8-22-1(a), the requirements of 326 IAC 8-22 are not applicable to the water based adhesives operation, since this source is not locate in Lake or Porter Counties. This source is located in Marshall County.

Compliance Determination, Monitoring and Testing Requirements

- (a) The compliance monitoring requirements applicable to this source are as follows:
 - (1) If overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the dry particulate filters and do either of the following no later than four (4) hours after such observation:
 - (A) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (B) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
 - (2) 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 of the control device, or change in the operations, so that the overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

These compliance monitoring requirements are necessary to assure that the dry filters operate properly in order to comply with the PM limits under 326 IAC 6-3-2.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on August 15, 2016.

The operation of this source shall be subject to the conditions of the attached proposed MSOP No. M099-37519-00070. The staff recommends to the Commissioner that this MSOP be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Allen Reimer 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 Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emissions Calculations

Summary

Company Name: Ayr Custom Cabinetry

Source Address: 1074 US Highway 6, Nappanee, Indiana 46550

Permit Number: M099-37519-00070
Reviewer: Allen Reimer

Uncontrolled/Unlimited Emissions (Before Integral Woodworking Controls) (tons/year)

Emission Units	PM	PM10	PM2.5	SO2	NOx	VOC	СО	Total HAPs	Worst Single HAP	
Five (5) Cabinet Coating Booths	2.62	2.62	2.62	-	-	35.02	-	9.34	7.99	Toluene
										Methylene
Two (2) Countertop Coating Booths	1.72	1.72	1.72	-	-	1.31	-	6.07	5.56	Chloride.
Two (2) woodworking areas	22.53	22.53	22.53	-	-	-	-	-	-	-
Miscellaneous Woodworking Equipment	0.31	0.18	0.18	-	-	-	-	-	-	-
Three (3) natural gas fired combustion facilities	0.07	0.29	0.29	0.02	3.86	0.21	3.25	0.07	0.07	Hexane
Water-based Adhesives	0.00	0.00	0.00	-	-	1.1E-05	-	0.00	0.00	-
Paved Roads (Fugitive)	0.91	0.18	0.04	-	-	-	-	-	-	-
Unpaved Roads (Fugitive)	4.65	1.24	0.12	-	-	-	-	-	-	-
Total	32.80	28.76	27.50	0.02	3.86	36.54	3.25	15.48	7.99	Toluene

Unlimited Emissions (After Integral Woodworking Controls) (tons/year)

Emission Units	PM	PM10	PM2.5	SO2	NOx	VOC	CO	Total HAPs	Worst	Single HAP
Five (5) Cabinet Coating Booths	2.62	2.62	2.62	-	-	35.02	-	9.34	7.99	Toluene
										Methylene
Two (2) Countertop Coating Booths	1.72	1.72	1.72	-	-	1.31	-	6.07	5.56	Chloride.
Two (2) woodworking areas	0.45	0.45	0.45	-	-	-	-	-	-	-
Insignificant Woodworking	0.31	0.18	0.18	-	-	-	-	-	-	-
Three (3) natural gas fired combustion facilities	0.07	0.29	0.29	0.02	3.86	0.21	3.25	0.07	0.07	Hexane
Water-based Adhesives	0.00	0.00	0.00	-	-	1.1E-05	-	0.00	0.00	-
Paved Roads (Fugitive)	0.91	0.18	0.04	-	-	-	-	-	-	-
Unpaved Roads (Fugitive)	4.65	1.24	0.12	-	-	-	-	-	-	-
Total	10.73	6.68	5.43	0.02	3.86	36.54	3.25	15.48	7.99	Toluene

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

Three (3) Cabinet Coating Booths (Booths 1 through 5)

Two (2) Countertop Coating Booths (Countertop Booths 1 and 2)

Company Name: Ayr Custom Cabinetry

Source Address: 1074 US Highway 6, Nappanee, Indiana 46550

Permit Number: M099-37519-00070 Reviewer: Allen Reimer

Operation	Material	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non- Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum Per Booth (unit/hour)	Gal of Mat. (gal/day)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency**
	HC 3032 Stain Base	6.3	100.00%	0%	100%	0	0.00%	0.03650										
	CEMCOLOR Burnt Umber Colorant	12.6	30.69%	0%	31%	0	51.50%	0.00641										
	As-Applied Stain	7.25	90.0%	0.00%	90.0%	0.00%	0.080%	0.043	2.0	2.06	6.53	6.53	0.56	13.4	2.5	0.068	8156	75%
	HC Aristovar Ultrasand	7.85	68.9%	0.03%	68.87%	0.00%	24.3%	0.055										
Each Cabinet	HC Aristocrat Catalyst	7.58	77%	1.15%	75.91%	1.15%	13.91%	0.0034										
Coating Booth	As-Applied Sealer	7.83	69.0%	0.09%	68.9%	0.09%	24.8%	0.058	2.0	2.79	5.40	5.40	0.63	15	2.8	0.31	21.8	75%
Coating Bootin																		
	HC Aristovar Plus 90	7.81	62.2%	7.83%	54.4%	7.83%	30.0%	0.136										
	HC Aristocrat Catalyst	7.58	77%	1.15%	76%	0.00%	13.91%	0.0085										
	As-Applied Top Coat	7.88	66.1%	6.16%	60.0%	6.16%	26.8%	0.025	2.0	1.20	5.04	4.72	0.24	6	1.0	0.15	17.6	75%
	T84C00017 Wash																	
	Thinner	6.91	69%	0.00%	69.1%	0.00%	0.00%	0.018	2.0	0.88	4.77	4.77	0.17	4	8.0	0.00	N/A	100%

^{*}According to the source, each booth applies more than one coating.
**Transfer efficiency of 75% based on air atomization spray application.

TOTAL for 1 Booth: 6.93 TOTAL for all 5 Booths:

1.60 38.38 7.00 0.52 191.88 35.02 2.62

Dry Filter Control Efficiency:	95%
Particulate Potential After Control Per Booth (ton/yr):	0.03
Particulate Potential After Control For all 5 Booths (ton/yr):	0.13

Operation	Material	Density (lb/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics		Volume % Non- Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum Per Booth (unit/hour)		Pounds VOC per gallon of coating less water		Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency*
	Glue A	10.2	45.0%	0.00%	45.0%	0.00%	55.0%	0.035	0.625							i		
Two (2) Countertop	Glue B	8.70	100%	0.00%	100%	0.00%	0.00%	0.035	0.625							i '		
Coating Booths	As-Applied Glue	9.43	70.4%	0.00%	70.4%	0.00%	30.0%	0.070	0.625	1.05	6.63	6.63	0.290	7.0	1.27	0.134	22.1	75%
County Bootis																· · · · · · · · · · · · · · · · · · ·		
	Adhesive	10.90	0.6%	0.0%	0.64%	0.0%	99.9%	0.214	0.625	3.21	0.07	0.070	0.009	0.224	0.041	1.588	0.07	75%

^{*}Transfer efficiency of 75% based on air atomization spray application.

TOTAL for 2 Booths: 4.26

0.30 7.19 1.31 1.72

Dry Filter Control Efficiency:	95%
Particulate Potential After Control For all 5 Booths (ton/vr):	0.09

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal)) * Weight % organics) / (Volume % solids)

Total VOC and PM = Sum of the worst case from the cabinet coating booths and the countertop coating booths

Transfer efficiency of 100% based on non-atomized flow coating application.

Appendix A Potential Emissions Calculations VOC and Particulate From Surface Coating Operations Three (3) Cabinet Coating Booths (Booths 1 through 5

Two (2) Countertop Coating Booths (Countertop Booths 1 and 2

Company Name: Ayr Custom Cabinetry
Source Address: 1074 US Highway 6, Nappanee, Indiana 46550
Permit Number: M099-37519-00070

Reviewer: Allen Reimer

CEMOCIOR Sunt Index Coorant 12.56 0.0943 2.0	Operation	Material	Density (lb/gal)	Gal of Mat. (gal/unit)	Maximum Per Booth (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Benzoly Peroxide	Weight % MIBK	Weight % Benzene	Weight % Mehtylene Chloride	Weight % Mehtyl Methacrylate	Weight % Methanol	Weight % Ethylbenzene
As-Applied Stair		HC 3032 Stain Base		0.03650		-	4.95%	-	-	-	-	-	-	-	-
HC Anstourar Ultrasand 7.85 0.056 2.0 2.30% 8.30% 0.001% - 0.05% 0.63%						-	-	-	-	-	-	-	-	-	-
HC Aristoral Catalyst 7.58 0.0034 2.0		As-Applied Stain	7.25	0.043	2.0										
HC Aristoral Catalyst 7.58 0.0034 2.0															
As-Applied Sealer 7.83 0.058 2.0						2.30%	8.30%	0.001%	-	0.09%	-	-	-	-	0.63%
As-Applied Sealer	Five (5) Cabinet					-	-	-	-	-	-	-	-	-	-
HC Aristovar Catalyst 7.58 0.136 2.0 1.15% 12.10% 0.11%		As-Applied Sealer	7.83	0.058	2.0										
HC Anstocral Catalyst 7.58 0.0085 2.0	County Doomic														
As-Applied Top Coat 7.88 0.025 2.0						1.15%	12.10%	0.11%	-	-	-	-	-	-	-
Taylor T						-	-	-	-	-	-	-	-	-	-
Corian Part A 10.2 0.035 0.625		As-Applied Top Coat	7.88	0.025	2.0										
Corian Part A 10.2 0.035 0.625															
Corian Part B 8.70 0.035 0.625		T84C00017 Wash Thinner	6.91	0.018	2.0	-	5.44%	-	-	-	0.01%	-	-	3.41%	0.01%
Corian Part B 8.70 0.035 0.625															
As-Applied Glue 9.43 0.070 0.625						-		-	-	-	-	-	50.00%	-	
Adhesive 10.90 0.214 0.625 - - - - - - - - -	Two (2) Counterton		8.70			-		-	3.00%	-	-	-		-	
Adhesive 10.90 0.214 0.625 - - - - - - 87.00% - - - - -		As-Applied Glue	9.43	0.070	0.625										
Operation Material Density (lb/gal) (lg/gal)	Coating Bootins														
Material Density (b/gal) Gal of Mat. (gal/unit) (mit/hour) Maximum (mit/hour) Emissions (ms/yr)		Adhesive	10.90	0.214	0.625	-	-	-	-	-	-	87.00%	-	-	-
HC 3032 Stain Base 6.3 0.03650 2.0 - 0.10	Operation	Material				Emissions	Emissions	Emissions	Peroxide Emissions	Emissions	Emissions	Chloride Emissions	Methacrylate Emissions	Emissions	
CEMCOLOR Burnt Umber Colorani 12.6 0.00641 2.0		HC 3032 Stain Base	6.2	0.03650	2.0		0.10		(tons/yr)				, ,,		
As-Applied Stair 7.25 0.043 2.0														-	
HC Aristovar Ultrasand 7.85 0.055 2.0 0.09 0.31 0.00 - 0.00 0.00 0.02 As-Applied Sealer 7.83 0.058 2.0						_		-	-	-		_		-	-
HC Aristocrat Catalyst 7.58 0.0034 2.0		As-Applied Stall	7.25	0.043	2.0			l l		1		l		1	
HC Aristocrat Catalyst 7.58 0.0034 2.0		HC Aristovar I Iltrasand	7.85	0.055	2.0	0.09	0.31	0.00		0.00		_			0.02
As-Applied Sealer 7.83 0.058 2.0						0.03	0.01	0.00							
HC Aristovar Plus 90 7.81 0.136 2.0 0.11 1.13 0.01 - - - - - - - - -	Each Cabinet Coating	HC Aristocrat Catalyst		0.0034	2.0		_								
HC Aristocrat Catalyst 7.58 0.0085 2.0			7.58			-	-	-	-	-	-	-	-		
HC Aristocrat Catalyst 7.58 0.0085 2.0			7.58			-	-	-	<u> </u>	-	-	-	-		
As-Applied Top Coal 7.88 0.025 2.0		As-Applied Sealer	7.58 7.83	0.058	2.0				-	-	-				-
T84C00017 Wash Thinner 6.91 0.018 2.0 - 0.06 0.00 - 0.004 0.00 Corian Part A 10.2 0.035 0.625 0.03 0.49 Corian Part B 8.70 0.035 0.625 0.03 0.03		As-Applied Sealer HC Aristovar Plus 90	7.58 7.83 7.81	0.058	2.0			0.01	-	-	-		-		-
Two (2) Countertop Corian Part B 8.70 0.035 0.625 0.03 0.49		As-Applied Sealer HC Aristovar Plus 90 HC Aristocrat Catalyst	7.58 7.83 7.81 7.58	0.058 0.136 0.0085	2.0 2.0 2.0			0.01	-	-	-		-		-
Two (2) Countertop Corian Part B 8.70 0.035 0.625 - 0.03 0.03		As-Applied Sealer HC Aristovar Plus 90 HC Aristocrat Catalyst	7.58 7.83 7.81 7.58	0.058 0.136 0.0085	2.0 2.0 2.0			0.01	-		-		-		-
Two (2) Countertop Corian Part B 8.70 0.035 0.625 - 0.03 0.03		As-Applied Sealer HC Aristovar Plus 90 HC Aristorat Catalyst As-Applied Top Coat	7.58 7.83 7.81 7.58 7.88	0.058 0.136 0.0085 0.025	2.0 2.0 2.0 2.0	0.11	1.13	0.01	-		-		-	-	
Two (2) Countertop As Applied Clus 0.43 0.070 0.625		As-Applied Sealer HC Aristovar Plus 90 HC Aristocrat Catalyst As-Applied Top Coal T84C00017 Wash Thinner	7.58 7.83 7.81 7.58 7.88 6.91	0.058 0.136 0.0085 0.025 0.018	2.0 2.0 2.0 2.0 2.0	0.11	1.13	0.01	-	-	-		-	-	
Coating Booths As-Applied Giue 9.43 0.070 0.625		As-Applied Sealer HC Aristovar Plus 90 HC Aristocrat Catalyst As-Applied Top Coat T84C00017 Wash Thinner Corian Part A	7.58 7.83 7.81 7.58 7.88 6.91	0.058 0.136 0.0085 0.025 0.018	2.0 2.0 2.0 2.0 2.0 2.0	0.11	1.13 - 0.06	0.01	-	-	0.00	-	0.49	0.04	0.00
		As-Applied Sealer HC Aristovar Plus 90 HC Aristorat Catalyst As-Applied Top Coal T84C00017 Wash Thinner Corian Part A Corian Part B	7.58 7.83 7.81 7.58 7.88 6.91	0.058 0.136 0.0085 0.025 0.018 0.035 0.035	2.0 2.0 2.0 2.0 2.0 2.0 0.625	0.11	1.13 - 0.06	0.01	-	-	0.00	-	0.49	0.04	0.00

1.60

0.00

0.01

0.00

0.00

0.03

Cabinet Coating Booths Total HAPs (1 Booth):	1.87	
Cabinet Coating Booths Total HAPs (5 Booths):	9.34	
Cabinet Coating Booths Worst Single HAP (1 Booth):	1.60	Toluene
Cabinet Coating Booths Worst Single HAP (5 Booths):	7.99	Toluene
Countertop Coating Booths Total HAPs (2 Booths):	6.07	
Countertop Coating Booths Worst Single HAP (2 Booths):	5.56	Methylene Chloride

0.00

0.00

0.00

0.00

5.56

0.00

5.56

0.00

0.49

0.04

0.00

0.02

0.00

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Pounds of VOC per Gallon Coating = (Lehisty (loigal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)*

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1 - Weight % Volatiles) * (1 - Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total VOC and PM = Sum of the worst case from the cabinet coating booths and the countertop coating booths

10.90 0.214 0.625

Cabinet Coating Booth Total Single HAP (1 Booth):

Countertop Coating Booths Total Single HAP (2 Booths):

Adhesive

Appendix A: Emission Calculations Woodworking Operations

Company Name: Ayr Custom Cabinetry

Source Address: 1074 US Highway 6, Nappanee, Indiana 46550

Permit Number: M099-37519-00070

Reviewer: Allen Reimer

Unit ID	Saw Dust Collected Per Unit (lb/unit)	Maximum Capacity (unit/hr)	Control Efficiency	PTE of PM/PM10/PM2.5 Before Integral Controls (lb/hr)	PTE of PM/PM10/PM2.5 Before Integral Controls (tons/yr)	PTE of PM/PM10/PM2.5 After Integral Controls (lb/hr)	PTE of PM/PM10/PM2.5 After Integral Controls (tons/yr)
P1	0.504	7.5	98%	3.86	16.89	0.08	0.34
P2	P2 0.504 2.5		98%	1.29	5.63	0.03	0.11
			Totals	5.14	22.53	0.10	0.45

Methodology

PTE of PM/PM10/PM2.5 Before Integral Controls (lb/hr) = Saw Dust Collected Per Unit (lb/unit) * Maximum Capacity (unit/hr) / Control Efficiency PTE of PM/PM10/PM2.5 Before Integral Controls (tons/yr) = PTE of PM/PM10/PM2.5 Before Integral Controls (lb/hr) * 8760 hrs/yr / 2000 lb/ton PTE of PM/PM10/PM2.5 After Integral Controls (lb/hr) = PTE of PM/PM10/PM2.5 Before Integral Controls (lb/hr) * (1 - Control Efficiency) PTE of PM/PM10/PM2.5 After Integral Controls (tons/yr) = PTE of PM/PM10/PM2.5 Before Integral Controls (tons/yr) * (1 - Control Efficiency)

Appendix A: Emissions Calculations Miscellaneous Woodworking Equipment

Company Name: Ayr Custom Cabinetry

Source Address: 1074 US Highway 6, Nappanee, Indiana 46550

Permit Number: M099-37519-00070

Reviewer: Allen Reimer

	Maximum							
	Throughput	Throughput Uncontrolled Emission Potential Un				Potential Uncontrolle		
Emission Unit	(lbs/hr)	Facto	or (lb/ton)	Emissio	ns (lb/hr)	Emissio	ns (tons/year)	
		PM	PM10/PM2.5	PM	PM10/PM2.5	PM	PM10/PM2.5	
Miscellaneous Woodworking Equipment	400	0.35	0.20	0.07	0.04	0.31	0.18	
			•		Total	0.31	0.18	

Methodology

The emission factors used in the above table are from AP-42, 4th Edition, September 1985, Table 10.3-1.

Maximum Throughput (lbs/hr) provided by the source.

Potential Uncontrolled PM/PM10/PM2.5 (lb/hr) = Throughput (lbs/hr) * Emission Factor (lb/ton)

Potential Uncontrolled PM/PM10/PM2.5 (tons/year) = Potential Uncontrolled PM/PM10/PM2.5 (lb/hr) * 8760 hr/year * 1 ton/2000 lbs

Potential Throughput

MMCF/yr

77.3

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

Company Name: Ayr Custom Cabinetry

Source Address: 1074 US Highway 6, Nappanee, Indiana 46550

Permit Number: M099-37519-00070 Reviewer: Allen Reimer

HHV

Heat Input Capacity mmBtu MMBtu/hr mmscf 9.0 Three (3) furnaces, each at 3.0 MMBtu/hr 1020

		Pollutant												
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO							
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100	5.5	84							
					**see below									
Potential Emission in tons/yr	0.07	0.29	0.29	0.02	3.86	0.21	3.25							

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

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

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

Hazardous Air Pollutants (HAPs)

		HAPs - Organics												
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Total - Organics								
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03									
Potential Emission in tons/yr	8.1E-05	4.6E-05	2.9E-03	0.07	1.3E-04	0.07								

		HAPs - Metals											
	Lead	Cadmium	Chromium	Manganese	Nickel	Total - Metals							
Emission Factor in lb/MMcf	2.1E-03												
Potential Emission in tons/yr	1.9E-05	4.3E-05	5.4E-05	1.5E-05	8.1E-05	2.1E-04							
Methodology is the same as above.	Total HAPs	0.07											
The five highest organic and metal Ha	Worst HAP	0.07											

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

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

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

Appendix A: Emissions Calculations **VOC and Particulate** From Surface Coating Operations **Water Based Adhesives Operation**

Company Name: Ayr Custom Cabinetry

Source Address: 1074 US Highway 6, Nappanee, Indiana 46550

Permit Number: M099-37519-00070

Reviewer: Allen Reimer

	Material	Density (Lb/Gal)	Volatile (H20 &	Weight % Water	Weight % Organics		Volume % Non- Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
	Water based adhesives	9.51	52.0%	52.0%	0.040%	95.0%	5.00%	0.010	0.067	0.076	0.004	0.000003	0.0001	0.00001	0.00	0.076	100%
_											Uncon	trolled PTE:	0.0001	0.00001	0.00		
											PM Contro	I Efficiency:			0.00%		
											Con	trolled PTE:	0.0001	0.00001	0.00		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs) Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations Fugitive Dust Emissions - Paved Roads

Company Name: Ayr Custom Cabinetry

Source Address: 1074 US Highway 6, Nappanee, Indiana 46550

Permit Number: M099-37519-00070
Reviewer: Allen Reimer

Paved Roads at Industrial Site

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

Vehicle Informtation (provided by source)

,,									1
	Maximum			Maximum					
	number of	Number of one-	Maximum trips	Weight	Total Weight	Maximum one-	Maximum one-	Maximum one-	Maximum one-
	vehicles per	way trips per	per day	Loaded	driven per day	way distance	way distance	way miles	way miles
Туре	day	day per vehicle	(trip/day)	(tons/trip)	(ton/day)	(feet/trip)	(mi/trip)	(miles/day)	(miles/yr)
Vehicle (entering plant) (one-way trip)	1.0	48.0	48.0	40.0	1920.0	80	0.015	0.7	265.5
Vehicle (leaving plant) (one-way trip)	1.0	48.0	48.0	40.0	1920.0	80	0.015	0.7	265.5
•		Totale	96.0		3840.0			1.5	530.0

Average Vehicle Weight Per Trip = 40.0 tons/trip
Average Miles Per Trip = 0.02 miles/trip

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

	PIVI	PIVITU	PIVIZ.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	40.0	40.0	40.0	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m^2 = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

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

Mitigated Emission Factor, Eext = Ef * [1 - (p/4N)]

where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)

	PM	PM10	PM2.5	1
Unmitigated Emission Factor, Ef =	3.745	0.749	0.1838	lb/mile
Mitigated Emission Factor, Eext =	3.424	0.685	0.1681	lb/mile

	Unmitigated	Unmitigated	Unmitigated	Mitigated	Mitigated PTE	Mitigated PTE
	PTE of PM	PTE of PM10	PTE of PM2.5	PTE of PM	of PM10	of PM2.5
Process	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
Vehicle (entering plant) (one-way trip)	0.50	0.10	0.02	0.45	0.09	0.02
Vehicle (leaving plant) (one-way trip)	0.50	0.10	0.02	0.45	0.09	0.02
Totals	0.99	0.20	0.05	0.91	0.18	0.04

Methodology

Total Weight driven per day (ton/day)
Maximum one-way distance (mi/trip)
Maximum one-way miles (miles/day)
Average Vehicle Weight Per Trip (ton/trip)
Average Miles Per Trip (miles/trip)
Unmitigated PTE (tons/yr)
Mitigated PTE (tons/yr)
Controlled PTE (tons/yr)

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

Abbreviations

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

Appendix A: Emission Calculations Fugitive Dust Emissions - Unpaved Roads

Company Name: Ayr Custom Cabinetry

Source Address: 1074 US Highway 6, Nappanee, Indiana 46550

Permit Number: M099-37519-00070 Reviewer: Allen Reimer

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)

		Number of		Maximum				Maximum
	Maximum	one-way trips	Maximum trips	Weight	Total Weight	Maximum one-	Maximum one-	one-way
	number of	per day per	per day	Loaded	driven per day	way distance	way miles	miles
Туре	vehicles	vehicle	(trip/day)	(tons/trip)	(ton/day)	(mi/trip)	(miles/day)	(miles/yr)
Vehicle (entering plant) (one-way trip)	1.0	48.0	48.0	40.0	1920.0	0.042	2.0	730.6
Vehicle (leaving plant) (one-way trip)	1.0	48.0	48.0	40.0	1920.0	0.042	2.0	730.6
		Totals	96.0		3840 0		4.0	1461 2

Average Vehicle Weight Per Trip = 40.0 tons/trip Average Miles Per Trip = miles/trip

Unmitigated Emission Factor, Ef = $k*[(s/12)^a]*[(W/3)^b]$ (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 =	6.0	6.0	6.0	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Iron and Steel Production)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	40.0	40.0	40.0	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

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

Mitigated Emission Factor, Eext = E * [(365 - P)/365]

where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	9.68	2.58	0.26	lb/mile
Mitigated Emission Factor, Eext =	6.36	1.70	0.17	lb/mile

	Unmitigated	Unmitigated	Unmitigated	Mitigated	Mitigated	Mitigated
	PTE of PM	PTE of PM10	PTE of PM2.5	PTE of PM	PTE of PM10	PTE of PM2.5
Process	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)	(tons/yr)
Vehicle (entering plant) (one-way trip)	3.53	0.94	0.09	2.32	0.62	0.06
Vehicle (leaving plant) (one-way trip)	3.53	0.94	0.09	2.32	0.62	0.06
Totals	7.07	1.88	0.19	4.65	1.24	0.12

Methodology

Total Weight driven per day (ton/day) Maximum one-way distance (mi/trip) Maximum one-way miles (miles/day) Average Vehicle Weight Per Trip (ton/trip) Average Miles Per Trip (miles/trip) Unmitigated PTE (tons/yr) Mitigated PTE (tons/yr) Controlled PTE (tons/yr)

- = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
- = [Maximum one-way distance (feet/trip) / [5280 ft/mile]
- = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
- = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
- = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
- = (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs) = (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
- = (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



We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204

(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence Governor

Carol S. Comer

Notice of Public Comment

September 6, 2016 Ayr Custom Cabinetry, Inc. 099-375619-00070

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

Please Note: If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.

Enclosure PN AAA Cover.dot 2/17/2016





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Michael R. Pence *Governor*

Carol S. Comer

September 6, 2016

Mr. John Helmuth Ayr Custom Cabinetry, Inc. 1074 US Highway 6 Nappanee, IN 46550

Re: Public Notice

Ayr Custom Cabinetry, Inc.

Permit Level: Minor Source Operating Permit

Permit Number: 099-37519-00070

Dear Mr. Helmuth:

Enclosed is a copy of your draft Minor Source Operating Permit, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Plymouth Pilot News in Plymouth, Indiana publish the abbreviated version of the public notice no later than September 9, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Bremen Public Library, 304 N. Jackson Street in Bremen, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Allen Reimer, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 3-0863 or dial (317) 233-0863.

Sincerely,

Greg Hotopp

Greg Hotopp Permits Branch Office of Air Quality

Enclosures PN Applicant Cover letter 2/17/2016







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Michael R. Pence Governor

Carol S. Comer

September 6, 2016

To: Bremen Public Library

From: Matthew Stuckey, Branch Chief

Permits Branch
Office of Air Quality

Subject: Important Information to Display Regarding a Public Notice for an Air

Permit

Applicant Name: Ayr Custom Cabinetry, Inc.

Permit Number: 099-37519-00070

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. Please make this information readily available until you receive a copy of the final package.

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. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures PN Library.dot 2/16/2016







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(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence Governor

Carol S. Comer

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

September 6, 2016

Plymouth Pilot News PO Box 220 Plymouth, IN 46563

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Ayr Customs Cabinetry, Inc., Marshall County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than September 9, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Greg Hotopp at 800-451-6027 and ask for extension 4-3493 or dial 317-234-3493.

Sincerely,

Greg Hotopp

Greg Hotopp Permit Branch Office of Air Quality

Permit Level: Minor Source Operating Permit

Permit Number: 099-37519-00070

Enclosure

PN Newspaper.dot 2/17/2016





Mail Code 61-53

IDEM Staff	GHOTOPP 9/6/2	2016		
	Ayr Custom Cabi	netry, Inc. 099-37519-00070 Draft	AFFIX STAMP	
Name and		Indiana Department of Environmental	Type of Mail:	HERE IF
address of		Management		USED AS
Sender		Office of Air Quality – Permits Branch	CERTIFICATE OF	CERTIFICATE
		100 N. Senate	MAILING ONLY	OF MAILING
		Indianapolis, IN 46204	MAILING ONE!	

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											Remarks
1		John Helmuth Ayr Custom Cabinetry, Inc. 1074 US Hwy 6 Nappannee IN 46550 (Soul	rce CAATS)		•		•	•	•		
2		Bremen Public Library 304 N Jackson St Bremen IN 46506-1130 (Library)									
3		Nappanee City Council and Mayors Office P.O. Box 29 Nappanee IN 46550 (Local	Official)								
4		Marshall County Commissioners 112 West Jefferson Street Plymouth IN 46563 (Lo	cal Official)								
5		Marshall County Health Department 112 W Jefferson Street, Suite 103 Plymouth IN	46563-1764	(Health Depa	rtment)						
6		LaPaz Town Council PO Box 0820 LaPaz IN 46537 (Local Official)									
7		Ms. Julie Grzesiak 139 N. Michigan St. Argos IN 46501 (Affected Party)									
8		James Heim J.C. Heim and Associates 57901 Blue Heron Drive Goshen IN 46528 (C	Consultant)								
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