



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: November 2, 2006
RE: Tippman -Graber Cabinet / 003-18539-00304
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot 03/23/06



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MINOR SOURCE OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

Tippman – Graber Cabinet Co., LLC dba Cabinets by Graber, Inc.
15202 Grabill Road
Grabill, Indiana 46741

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

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.

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.

Operation Permit No.: MSOP 003-18539-00304	
Issued by: Original signed by Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: November 2, 2006 Expiration Date: November 2, 2011

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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 wooden cabinet surface coating and composite countertop manufacturing operation.

Authorized Individual:	Plant Manager
Source Address:	15202 Grabill Road, Grabill, Indiana 46741
Mailing Address:	15202 Grabill Road, Grabill, Indiana 46741
General Source Phone:	(260) 627 2243
SIC Code:	2434
County Location:	Allen
Source Location Status:	Maintenance for Ozone under 1-hr standard Basic Nonattainment under 8-hr standard Attainment area for all other criteria pollutants
Source Status:	Minor Source Operating Permit Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act

A.2 Emissions Units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

- (a) Four (4) paint booths, identified as PB1, PB2 and PB3, constructed in October 1999, and PB4, constructed in April 2003, each equipped with airless spray guns, coating a combined maximum of 2.79 wood units per hour, utilizing dry filters for particulate overspray control, and each exhausting from one stack respectively identified as P1, P2, P3, and P4;
- (b) One (1) counter top manufacturing operation, consisting of the following:
 - (1) six (6) forming tables for pouring resins;
 - (2) sanding and trimming area, utilizing an air purifier for particulate control.
- (c) One (1) paint booth, identified as PB5, constructed in 2006, equipped with air atomized spray guns, coating a maximum of 0.69 wood units per hour, utilizing dry filters for particulate overspray control, and exhausting from one stack P5;
- (d) Three (3) No. 1 distillate oil fuel fired heaters, identified as H1, H2, and H3, each rated at 0.125 million British thermal units (MMBtu) per hour, each exhausting at one (1) stack, identified as H1, H2, and H3, respectively;
- (e) One (1) No. 1 distillate oil fuel fired dryer, identified as D4, rated at 0.165 million British thermal units (MMBtu) per hour, exhausting at one (1) stack, identified as D4;
- (f) Miscellaneous saws/sanders/wood trimming equipment, with a maximum capacity of 100 pounds per hour of wood, utilizing a baghouse and cyclone collection system for particulate control and exhausting to the interior of the building;

- (g) One (1) propane unit heater with a maximum heat input rate of 0.175 million British Thermal Units per hour;
- (h) One (1) natural gas fired air make-up unit with a maximum heat input rating of 2.9 million British thermal units (MMBtu) per hour; and
- (i) Seven (7) natural gas fired radiant tube heaters each having a maximum heat input rating of 0.15 MMBtu per hour.
- (j) One (1) natural gas fired air make-up unit with a maximum heat input rating of 1.10 million British thermal units (MMBtu) per hour.

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, 003-18539-00304, 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. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]

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

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue,
Indianapolis, 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.10 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) The Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:
 - (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.
- (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 or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to 003-18539-00304, 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.12 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 ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 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 the certification 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least ninety (90) 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 in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.14 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.15 Source Modification Requirement

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

B.16 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][IC13-17-3-2][IC 13-30-3-1]

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

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.17 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification 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.18 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing.
- (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.19 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 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.4 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.5 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
Asbestos Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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 Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

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

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (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.7 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.8 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.9 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.10 Instrument Specifications [326 IAC 2-1.1-11]

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

Corrective Actions and Response Steps

C.11 Response to Excursions or Exceedances

- (a) Upon detecting an excursion or exceedance, the Permittee shall 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 emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned 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 within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (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;
 - (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 maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.12 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.13 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.14 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 or LA initials within a reasonable time.
 - (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.15 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 Data Section, Office of Air Quality
100 North Senate Avenue
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) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

SECTION D.1

EMMISSIONS UNITS OPERATION CONDITIONS

Emissions Unit Description:

- (a) Four (4) paint booths, identified as PB1, PB2 and PB3, constructed in October 1999, and PB4, constructed in April 2003, each equipped with airless spray guns, coating a combined maximum of 2.79 wood units per hour, utilizing dry filters for particulate overspray control, and each exhausting from one stack respectively identified as P1, P2, P3, and P4;
- (b) One (1) counter top manufacturing operation, consisting of the following:
 - (1) six (6) forming tables for pouring resins;
 - (2) sanding and trimming area, utilizing an air purifier for particulate control.
- (c) One (1) paint booth, identified as PB5, constructed in 2006, equipped with air atomized spray guns, coating a maximum of 0.69 wood units per hour, utilizing dry filters for particulate overspray control, and exhausting from one stack P5.

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

Emission Limitations and Standards

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

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

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

D.1.2 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs)

- (a) Any change or modification which may increase the potential to emit to 100 tons per year or more of volatile organic compounds from the surface coating booths must be approved by IDEM, OAQ before any such change may occur.
- (b) Any change or modification which may increase the potential to emit of any single HAP to 10 tons per year or more and of any combination of HAPs to 25 tons per year or more, must be approved by IDEM, OAQ before any such change may occur.

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Any change or modification, from the one (1) composite counter top operation that would increase the potential VOC emissions to 25.0 tons per year or more, shall obtain approval from the Office of Air Quality (OAQ), as required by 326 IAC 2-1.1 before such change can occur.

D.1.4 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d):

- (a) Particulate from the surface coating shall be controlled by a dry particulate filter and the Permittee shall operate the control device in accordance with manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device 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 Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.6 Record Keeping Requirements

- (a) To document compliance with Condition D.1.2, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
 - (1) The amount and content of VOC and HAP of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
 - (2) The total VOC and HAP usage for each month; and
 - (3) The weight of VOCs and HAPs emitted for each compliance period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (c) Three (3) No. 1 distillate oil fuel fired heaters, identified as H1, H2, and H3, each rated at 0.125 million British thermal units (MMBtu) per hour, each exhausting at one (1) stack, identified as H1, H2, and H3, respectively;
- (d) One (1) No. 1 distillate oil fuel fired dryer, identified as D4, rated at 0.165 million British thermal units (MMBtu) per hour, exhausting at one (1) stack, identified as D4;
- (e) Miscellaneous saws/sanders/wood trimming equipment, with a maximum capacity of 100 pounds per hour of wood, utilizing a baghouse and cyclone collection system for particulate control and exhausting to the interior of the building;
- (f) One (1) propane unit heater with a maximum heat input rate of 0.175 million British Thermal Units per hour;
- (g) One (1) natural gas fired air make-up unit with a maximum heat input rating of 2.9 million British thermal units (MMBtu) per hour; and
- (h) Six (6) natural gas fired radiant tube heaters each having a maximum heat input rating of 0.15 MMBtu per hour.
- (j) One (1) natural gas fired air make-up unit with a maximum heat input rating of 1.10 million British thermal units (MMBtu) per hour.

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

Emission Limitations and Standards

D.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2) (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the woodworking facilities shall not exceed 0.551 pounds per hour when operating at a process weight rate of 100 pounds per hour.

D.2.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.2.3 Particulate Control

In order to comply with D.2.1, the baghouse and cyclone collection system for PM control shall be in operation and control emissions from the miscellaneous saws/sanders/wood trimming equipment at all times that the miscellaneous saws/sanders/wood trimming equipment are in operation.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE 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:	Tippman – Graber Cabinet Co., LLC dba Cabinets by Graber, Inc.
Address:	15202 Grabill Road
City:	Grabill, IN 46741
Phone #:	(260) 627 2243
MSOP #:	003-18539-00304

I hereby certify that Tippman – Graber Cabinet Co., LLC dba Cabinets by Graber, Inc. is
 still in operation.
 no longer in operation.

I hereby certify that Tippman – Graber Cabinet Co., LLC dba Cabinets by Graber, Inc. is
 in compliance with the requirements of MSOP 003-18539-00304.
 not in compliance with the requirements of MSOP 003-18539-00304.

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

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

Noncompliance:

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967**

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

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

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

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

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

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

DATE/TIME MALFUNCTION STARTED: ____/____/20____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

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

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

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

326 IAC 1-6-1 Applicability of rule

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

326 IAC 1-2-39 “Malfunction” definition

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

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

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

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

Addendum to the
Technical Support Document for Minor Source Operating Permit Renewal

Source Name:	Tippman – Graber Cabinet Co. LLC / dba Cabinets by Graber, Inc.
Source Location:	15202 Grabill Road, Grabill, Indiana 46741
County:	Allen
SIC Code:	2434
Operation Permit No.:	003-11152-00304
Operation Permit Issuance Date:	October 26, 1999
Permit Renewal No.:	003-18539-00304
Permit Reviewer:	Adeel Yousuf / EVP

On September 25, 2006, the Office of Air Quality (OAQ) had a notice published in the Ft. Wayne Journal Gazette, Ft. Wayne, Indiana, stating that Tippman – Graber Cabinet Co. LLC / dba Cabinets by Graber, Inc. had applied for a Minor Source Operating Permit (MSOP) renewal to operate a wooden cabinet surface coating and composite counter top manufacturing facility. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

No written comments were received during the public notice period, however, upon further review IDEM, OAQ has made the following changes to the MSOP (additions in bold, deletions in ~~strikeout~~):

1. Condition B.11 (Prior Permits Superseded) erroneously referenced a wrong permit number, and has been revised as follows to reflect the correct permit number.

B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]

-
- (a) All terms and conditions of permits established prior to ~~019-22736-00098~~ **003-18539-00304**, 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.

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

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

Source Background and Description

Source Name:	Tippman – Graber Cabinet Co. LLC / dba Cabinets by Graber, Inc.
Source Location:	15202 Grabill Road, Grabill, Indiana 46741
County:	Allen
SIC Code:	2434
Operation Permit No.:	003-11152-00304
Operation Permit Issuance Date:	October 26, 1999
Permit Renewal No.:	003-18539-00304
Permit Reviewer:	Adeel Yousuf / EVP

The Office of Air Quality (OAQ) has reviewed an application from Tippman – Graber Cabinet Co. LLC / dba Cabinets by Graber, Inc. relating to the operation of wooden cabinet surface coating and composite counter top manufacturing.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) Four (4) paint booths, identified as PB1, PB2 and PB3, constructed in October 1999, and PB4, constructed in April 2003, each equipped with airless spray guns, coating a combined maximum of 2.79 wood units per hour, utilizing dry filters for particulate overspray control, and each exhausting from one stack respectively identified as P1, P2, P3, and P4;
- (b) One (1) counter top manufacturing operation, consisting of the following:
 - (1) six (6) forming tables for pouring resins;
 - (2) sanding and trimming area, utilizing an air purifier for particulate control.
- (c) Three (3) No. 1 distillate oil fuel fired heaters, identified as H1, H2, and H3, each rated at 0.125 million British thermal units (MMBtu) per hour, each exhausting at one (1) stack, identified as H1, H2, and H3, respectively;
- (d) One (1) No. 1 distillate oil fuel fired dryer, identified as D4, rated at 0.165 million British thermal units (MMBtu) per hour, exhausting at one (1) stack, identified as D4;
- (e) Miscellaneous saws/sanders/wood trimming equipment, with a maximum capacity of 100 pounds per hour of wood, utilizing a baghouse and cyclone collection system for particulate control and exhausting to the interior of the building;
- (f) One (1) propane unit heater with a maximum heat input rate of 0.175 million British Thermal Units per hour;

- (g) One (1) natural gas fired air make-up unit with a maximum heat input rating of 2.9 million British thermal units (MMBtu) per hour; and
- (h) Seven (7) natural gas fired radiant tube heaters each having a maximum heat input rating of 0.15 MMBtu per hour.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission units and pollution control devices:

- (a) One (1) paint booth, identified as PB5, constructed in 2006, equipped with air atomized spray guns, coating a maximum of 0.69 wood units per hour, utilizing dry filters for particulate overspray control, and exhausting from one stack P5.
- (b) One (1) natural gas fired air make-up unit with a maximum heat input rating of 1.10 million British thermal units (MMBtu) per hour.

Existing Approvals

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

- (a) MSOP No. 003-11152-00304, issued on October 26, 1999.
- (a) Exemption No.: 003-11747-00304, issued on February 2, 2000;
- (b) First Notice Only Change No.: 030-16565-00304, issued on October 4, 2002; and
- (c) First Minor Permit Revision No.: 030-16798-00304, issued on May 3, 2003.

All conditions from previous approvals were incorporated into this permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

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

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

A complete application for the purposes of this review was received on December 19, 2003.

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 9 of Appendix A).

Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	31.97
PM-10	32.13
SO ₂	1.21
VOC	32.63
CO	1.94
NO _x	2.55

HAPs	Potential to Emit (tons/yr)
Toluene	5.64
Methanol	2.44
Xylene	1.33
MEK	1.11
MIBK	1.11
Styrene	2.06
Methyl Methacrylate	0.32
Formaldehyde	0.04
Ethyl Benzene	0.19
Hexane	0.039
Total	14.29

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all pollutants are less than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. An MSOP will be issued.
- (c) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM-10	Attainment
PM-2.5	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.
- (b) Allen County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the source section.
- (c) Allen 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. See the State Rule Applicability for the source section.

Source Status

Existing Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	0.44
PM-10	0.57
SO ₂	1.21
VOC	32.61
CO	1.53
NO _x	2.07
Single HAP	5.64 (Toluene)
Combination HAPs	14.28

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories.
- (b) These emissions are based upon the Appendix A for the MSOP renewal Permit.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit 003-18539-00304, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons per year.

This status is based on all the air approvals issued to the source. This status has been verified by the OAQ inspector assigned to the source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in this permit.
- (b) 40 CFR Part 63, Subpart JJ (National Emission Standards for Wood Furniture Manufacturing Operations)

The requirements for National Emission Standards for Wood Furniture Manufacturing Operations (40 CFR 63, Subpart JJ) are not included in the permit because the source is not a major source of hazardous air pollutants pursuant to 40 CFR Part 63.2. The source does not have a potential to emit single and combined HAPs at 10 tons per year (tpy) and 25 tpy, respectively. Therefore this rule is not included in the permit.

There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) for source categories (326 IAC 20 and 40 CFR Part 63) applicable to this source.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Allen County and the potential to emit of PM10 and VOC are less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the 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.

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

The surface coating operations emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

State Rule Applicability – Individual Facilities

326 IAC 6-3-2(d) (Particulate emission limitations, work practices, and control technologies)

Pursuant to 326 IAC 6-3-2(d), particulate from the surface coating operations (PB1, PB2, PB3, PB4, and PB5) shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

326 IAC 8-1-6 (New Facilities)

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have potential volatile organic compound (VOC) emissions of 25 tons per year or more and are not subject to other provisions of Article 8. The surface coating booths (PB1, PB2, PB3, PB4, and PB5) are subject to the requirements of 326 IAC 8-2-12, therefore this rule does not apply. The one (1) composite countertop operation is not subject to the requirements of 326 IAC 8-1-6, because the one (1) composite countertop operation has potential to emit of VOC less than 25 tons per year.

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

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

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

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

The source is in compliance because "Airless Spray Application" one of the required application methods listed above, is used.

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

Pursuant to 326 IAC 6-3-2(e)(2) (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the woodworking facilities shall not exceed 0.551 pounds per hour when operating at a process weight rate of 100 pounds per hour.

Compliance Requirements

Permits issued under 326 IAC 2-6 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-6.1-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

There are no compliance monitoring requirements applicable to this source.

Conclusion

The operation of this wooden cabinet surface coating and composite counter top manufacturing source shall be subject to the Minor Source Operating Permit Renewal 003-18539-00304.

Appendix A: Emission Calculations

Company Name: Tippman - Graber Cabinet Co., LLC dba Cabinets by Graber, Inc.
Address, City IN Zip: 15202 Grabill Road, Grabill, Indiana 46741
Permit Number: 003-18539-00304
Reviewer: Adeel Yousuf / EVP
Date: August 1, 2006

Uncontrolled Potential Emissions (tons/year)						
Emissions Generating Activity						
Pollutant	Distillate Oil Combustion	Woodworking Operations	Composite Countertops	Surface Coating	Natural Combustion	TOTAL
PM	0.03	27.00	0.00	4.90	0.04	31.97
PM10	0.06	27.00	0.00	4.90	0.17	32.13
SO2	1.20	0.00	0.00	0.00	0.01	1.21
NOx	0.34	0.00	0.00	0.00	2.21	2.55
VOC	0.01	0.00	2.38	30.12	0.12	32.63
CO	0.08	0.00	0.00	0.00	1.86	1.94
total HAPs	negl.	0.00	2.38	11.87	0.04	14.29
worst case single HAP	negl.	0.00	(Styrene) 2.06	(Toluene) 5.64	(Hexane) 0.039	(Toluene) 5.64
Total emissions based on rated capacity at 8,760 hours/year.						
Controlled Potential Emissions (tons/year)						
Emissions Generating Activity						
Pollutant	Distillate Oil Combustion	Woodworking Operations	Composite Countertops	Surface Coating	Natural Combustion	TOTAL
PM	0.03	0.14	0.00	0.24	0.04	0.45
PM10	0.06	0.14	0.00	0.24	0.17	0.61
SO2	1.20	0.00	0.00	0.00	0.01	1.21
NOx	0.34	0.00	0.00	0.00	2.21	2.55
VOC	0.01	0.00	2.38	30.12	0.12	32.63
CO	0.08	0.00	0.00	0.00	1.86	1.94
total HAPs	negl.	0.00	2.38	11.87	0.04	14.29
worst case single HAP	negl.	0.00	(Styrene) 2.06	(Toluene) 5.64	(Hexane) 0.039	(Toluene) 5.64
Total emissions based on rated capacity at 8,760 hours/year, after control.						

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

**Company Name: Tippman - Graber Cabinet Co., LLC dba Cabinets by Graber, Inc.
Address, City IN Zip: 15202 Grabill Road, Grabill, Indiana 46741
Permit Number: 003-18539-00304
Reviewer: Adeel Yousuf / EVP
Date: August 1, 2006**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
PB1/PB2/PB3/PB4																
6501 Sealer	7.60	68.13%	0.0%	68.1%	0.0%	23.49%	0.13000	2.790	5.18	5.18	1.88	45.07	8.23	1.92	22.04	50%
6530 Topcoat	7.91	60.16%	0.0%	60.2%	0.0%	31.30%	0.10000	2.790	4.76	4.76	1.33	31.86	5.82	1.93	15.20	50%
1048 Catalyst	8.98	42.43%	0.0%	42.4%	0.0%	42.34%	0.01000	2.790	3.81	3.81	0.11	2.55	0.47	0.32	9.00	50%
16-8469 Stain	6.69	88.13%	0.0%	88.1%	0.0%	8.89%	0.03000	2.790	5.90	5.90	0.49	11.84	2.16	0.15	66.32	50%
Glaze	8.10	60.48%	0.5%	60.0%	0.5%	2.49%	0.03000	2.790	4.88	4.86	0.41	9.76	1.78	0.59	195.12	50%
PS125 Thinner	6.98	100.00%	0.0%	100.0%	0.0%	0.00%	0.13000	2.790	6.98	6.98	2.53	60.76	11.09	0.00	#DIV/0!	50%

6.74 161.85 29.54 4.90

Potential Emissions Add worst case coating to all solvents

Limit Usage:	Limit Usage:	Control Efficiency:		Limit Usage:	Limit Usage:	Limit Usage:	Controlled
PM	VOC	VOC	PM	VOC lbs per Hour	VOC lbs per Day	VOC tons per Year	PM tons/yr
0.00%	0.00%	0.00%	95.00%	6.74	161.85	29.54	0.24

Note: The material usage is spread through four booths (PB1, PB2, PB3 and PB4) as the maximum throughput consists of the combined maximum hourly throughput of all four paint booths.

Countertops

Resin	9.17	1.11%	0.0%	1.1%	0.0%	63.00%	8.02000	0.665	0.10	0.10	0.54	13.02	2.38	0.00	0.16	100%
Catalyst	9.75	0.00%	0.0%	0.0%	0.0%	0.00%	0.18000	0.550	0.00	0.00	0.00	0.00	0.00	0.00	#DIV/0!	100%

Potential Emissions Add worst case coating to all solvents

0.54 13.02 2.38 0.00

Limit Usage:	Limit Usage:	Control Efficiency:		Limit Usage:	Limit Usage:	Limit Usage:	Controlled
PM	VOC	VOC	PM	VOC lbs per Hour	VOC lbs per Day	VOC tons per Year	PM tons/yr
0.00%	0.00%	0.00%	95.00%	0.54	13.02	2.38	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
Composite countertop operation Weight % Volatile includes a 3% flash off factor for VOC based on the information provided by the source.

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

**Company Name: Tippman - Graber Cabinet Co., LLC dba Cabinets by Graber, Inc.
Address, City IN Zip: 15202 Grabill Road, Grabill, Indiana 46741
Permit Number: 003-18539-00304
Reviewer: Adeel Yousuf / EVP
Date: August 1, 2006**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
PB5																
HC VDB Glaze	6.52	98.88%	0.0%	98.9%	0.0%	1.12%	0.03000	0.690	6.45	6.45	0.13	3.20	0.58	0.003	575.62	50%
State Potential Emissions											0.13	3.20	0.58	0.003		
Add worst case coating to all solvents																

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)

HAP Emission Calculations

Company Name: Tippman - Graber Cabinet Co., LLC dba Cabinets by Graber, Inc.
 Address, City IN Zip: 15202 Grabill Road, Grabill, Indiana 46741
 Permit Number: 003-18539-00304
 Reviewer: Adeel Yousuf / EVP
 Date: August 1, 2006

Material	Density (Lb/Gal)	Gal of Mat (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % MEK	Weight % MIBK	Weight % Methanol	Weight % Styrene	Weight % Methyl Methacrylate	Weight % Formaldehyde	Weight % Ethyl Benzene
PB1/PB2/PB3/PB4												
6501 Sealer	7.60	0.13000	2.790	3.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.24%	0.00%
6530 Topcoat	7.91	0.10000	2.790	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.16%	2.00%
1048 Catalyst	8.98	0.01000	2.790	0.00%	0.00%	0.00%	0.00%	19.00%	0.00%	0.00%	0.00%	0.00%
16-8469 Stain	6.69	0.03000	2.790	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PS125 Thinner	6.98	0.13000	2.790	0.00%	40.00%	10.00%	10.00%	20.00%	0.00%	0.00%	0.00%	0.00%
Glaze	8.10	0.03000	2.790	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Countertops												
Resin	9.17	8.02000	0.665	0.00%	0.00%	0.00%	0.00%	0.00%	0.96%	0.15%	0.00%	0.00%
Catalyst	9.8	0.18000	0.550	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PB5												
HC VDB Glaze	6.52	0.03000	0.69	0.73%	0.00%	0.00%	0.00%	2.62%	0.00%	0.00%	0.00%	0.13%

Material	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	MEK Emissions (ton/yr)	MIBK Emissions (ton/yr)	Methanol Emissions (ton/yr)	Styrene Emissions (ton/yr)	Methyl Methacrylate Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)
PB1/PB2/PB3/PB4									
6501 Sealer	0.36	1.21	0.00	0.00	0.00	0.00	0.00	0.03	0.00
6530 Topcoat	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.19
1048 Catalyst	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00
16-8469 Stain	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PS125 Thinner	0.00	4.44	1.11	1.11	2.22	0.00	0.00	0.00	0.00
Glaze	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PB5									
HC VDB Glaze	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Total:	1.33	5.64	1.11	1.11	2.44	0.00	0.00	0.04	0.19

Total Potential Emissions

Material	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	MEK Emissions (ton/yr)	MIBK Emissions (ton/yr)	Methanol Emissions (ton/yr)	Styrene Emissions (ton/yr)	Methyl Methacrylate Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)
Countertops									
Resin	0.00	0.00	0.00	0.00	0.00	2.06	0.32	0.00	0.00
Catalyst	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total:	0.00	0.00	0.00	0.00	0.00	2.06	0.32	0.00	0.00

Total Potential Emissions

METHODOLOGY

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

**Appendix A: Emissions Calculations
Particulate Matter (PM) Emissions**

Company Name: Tippman - Graber Cabinet Co., LLC dba Cabinets by Graber, Inc.
Address, City IN Zip: 15202 Grabill Road, Grabill, Indiana 46741
Permit Number: 003-18539-00304
Reviewer: Adeel Yousuf / EVP
Date: August 1, 2006

Particulate Emissions Miscellaneous Woodworking Operations

PM/PM10:	0.003 gr/acf outlet x	1200 acf/min x	60 min/hr /	7000 gr/lb x	4.38 ton/yr / lb/hr /	0.01 (1- control efficiency) =	27.03 tons/yr (uncontrolled)
	where the total control efficiency is listed at		99.50%				0.14 tons/yr (controlled)

Methodology

Uncontrolled PM/PM10 = grain loading (gr/acf outlet) * Flow rate (acfm) * (60 min/hr) * (1 lb/7000 gr) * 4.38 (tons/yr / lb/hr) / (1- control efficiency %)
 Particulate emissions are controlled by a cyclone with 98% control efficiency

**Appendix A: Potential Emissions Calculations
 Natural Gas or No. 2 Distillate Fuel Oil Combustion
 MM BTU/HR <100
 Small Industrial Boiler**

**Company Name: Tippman - Graber Cabinet Co., LLC dba Cabinets by Graber, Inc.
 Address, City IN Zip: 15202 Grabill Road, Grabill, Indiana 46741
 Permit Number: 003-18539-00304
 Reviewer: Adeel Yousuf / EVP
 Date: August 1, 2006**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Potential Throughput kgals/year	S = Weight % Sulfur
0.54	4.7	33.8	0.5

Heat Input Capacity includes:
 Three (3) No. 1 distillate oil fueled heater, identified as H1, H2, and H3, each rated at 0.125 MMBtu per hour.
 One (1) No. 1 distillate oil fueled heaters, identified as D4, rated at 0.165 MMBtu per hour.

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal (No. 2 fuel oil combustion)	2.0	3.3	71.0	20.0	0.34	5.0
			(142S)	**see below		
Potential Emissions burning No. 2 fuel oil, tons/yr	0.03	0.06	1.20	0.34	0.01	0.08

Methodology:

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

Natural 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 (SUPPLEMENT D 3/98)

Emissions from natural gas combustion (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors for No. 2 fuel oil combustion are from AP 42, Tables 1.3-2 and 1.3-4 (SCC 1-02-005-01/02/03)

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

See next page for HAPs emissions calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#1 and #2 Fuel Oil
HAPs Emissions

Company Name: Tippman - Graber Cabinet Co., LLC dba Cabinets by Graber, Inc.
Address, City IN Zip: 15202 Grabill Road, Grabill, Indiana 46741
Permit Number: 003-18539-00304
Reviewer: Adeel Yousuf / EVP
Date: August 1, 2006

	HAPs - Metals				
Emission Factor in lb/mmBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	5.92E-04	4.44E-04	4.44E-04	4.44E-04	1.33E-03

	HAPs - Metals (continued)				
Emission Factor in lb/mmBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05	Total HAPs
Potential Emission in tons/yr	4.44E-04	8.88E-04	4.44E-04	2.22E-03	7.25E-03

Methodology

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

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

Company Name: Tippman - Graber Cabinet Co., LLC dba Cabinets by Graber, Inc.
Address, City IN Zip: 15202 Grabill Road, Grabill, Indiana 46741
Permit Number: 003-18539-00304
Reviewer: Adeel Yousuf / EVP
Date: August 1, 2006

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

5.1

44.2

One (1) natural gas fired air make-up unit rated at 2.9 MMBtu per hour
 One (1) natural gas fired air make-up unit rated at 1.1 MMBtu per hour
 Seven (7) natural gas fired radiant tube heaters with each rated at 0.15 MMBtu per hour

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.04	0.17	0.01	2.21	0.12	1.86

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

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

See next page for HAPs emissions calculations.

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

Company Name: Tippman - Graber Cabinet Co., LLC dba Cabinets by Graber, Inc.
Address, City IN Zip: 15202 Grabill Road, Grabill, Indiana 46741
Permit Number: 003-18539-00304
Reviewer: Adeel Yousuf / EVP
Date: August 1, 2006

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	4.645E-05	2.654E-05	1.659E-03	3.981E-02	7.520E-05

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	1.106E-05	2.433E-05	3.097E-05	8.405E-06	4.645E-05

Methodology is the same as previous page.

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