



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, 2005  
RE: JEJ Molding / 039-21031-00337  
FROM: Paul Dubenetzky  
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 1/10/05



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## MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

**JEJ Molding  
1940 West Market Street  
Nappanee, Indiana 46550**

(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.

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 039-21031-00337	
Issued by: Origin signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 2, 2005 Expiration Date: November 2, 2010

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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)]

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The Permittee owns and operates a stationary wood molding and panel manufacturing source.

Authorized Individual: James F. Shea, Chief Executive Officer  
Source Address: 1940 West Market Street, Nappanee, IN 46550  
Mailing Address: 502 S. Oakland Avenue, Nappanee, IN 46550  
General Source Phone: (574) 773-7941  
SIC Code: 2431 (Manufacturing of Fabricated Wood Millwork)  
County Location: Elkhart  
Source Location Status: Nonattainment area for ozone under the 8-hour standard  
Attainment area for all other criteria pollutants  
Source Status: Minor Source Operating Permit  
Minor Source, under PSD and Emission Offset  
Minor Source, Section 112 of the Clean Air Act  
Not in 1 of 28 Source Categories

### A.2 Emissions Units and Pollution Control Equipment Summary

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

#### North Building

- (a) two (2) HVLP spray coating booths, each constructed in 1995, each with a maximum capacity of 5300 units per hour, using dry filters for overspray control, and each exhausting through one (1) stack (E8 and E9);
- (b) one (1) vacuum coater, constructed in 1995, with a maximum capacity of 5300 units per hour;
- (c) one (1) Acimall Compo machine, constructed in 1995, with a maximum capacity of 1800 feet per hour. This machine puts a line of wood dough on trim to add decorative accent. It is not a stain or adhesive, but does adhere to the wood;
- (d) eight (8) natural gas fired heaters, each constructed in 1986, each rated at 0.26 million Btu per hour (MMBtu/hr), and each exhausting through one (1) stack (H11, H12 H13, H14, H15, H16, H17, and H18);
- (e) nine (9) natural gas fired heaters, each constructed in 1986, each rated at 0.1 MMBtu/hr, and each exhausting through one (1) stack (H9, H10 and H32 - H38);
- (f) one (1) natural gas fired heater, constructed in 1995, rated at 2.675 MMBtu/hr, and exhausting through one (1) stack (H31);
- (g) miscellaneous woodworking equipment, each constructed in 1986, that includes: one (1) Dima 4 head adjustable sander; two (2) ten inch chop saws, four (4) voorwood vinyl laminator, and one (1) voorwood vinyl splitter;

- (h) one (1) 25 horsepower (HP) Honeyville cyclone, constructed in 1986, for controlling particulate matter (PM) emissions from woodworking equipment in north building, exhausting through one (1) stack (E7);
- (i) one (1) compressor, constructed in 1995.

### **South Building**

- (a) one (1) roller coater adhesive, constructed in 1986, with a maximum capacity of 200 units per hour;
- (b) six (6) natural gas-fired heaters, each constructed in 1986, each rated at 0.06 MMBtu/hr, and each exhausting through one (1) stack (H25, H26, H27, H28, H29, and H30);
- (c) four (4) natural gas-fired heaters, each constructed in 1986, each rated at 0.05 MMBtu/hr, and each exhausting through one (1) stack (H21, H22, H23, and H24);
- (d) one (1) natural gas-fired heater, constructed in 1986, rated at 0.125 MMBtu/hr, and exhausting through one (1) stack (H6);
- (e) one (1) natural gas-fired heater, constructed in 1986, rated at 0.3 MMBtu/hr, and exhausting through one (1) stack (H5);
- (f) four (4) natural gas-fired heaters, each constructed in 1986, each rated at 0.15 MMBtu/hr, and each exhausting through one (1) stack (H3, H4, H7, and H8);
- (g) one (1) natural gas-fired heater, constructed in 1986, rated at 0.13 MMBtu/hr, and exhausting through one (1) stack (H2);
- (h) one (1) natural gas-fired heater, constructed in 1986, rated at 0.2 MMBtu/hr, and exhausting through one (1) stack (H1);
- (i) two (1) natural gas-fired heaters, each constructed in 1986, each rated at 0.1 MMBtu/hr, and each exhausting through one (1) stack (H19 and H20);
- (j) miscellaneous woodworking equipment, each constructed in 1986, that includes: one (1) V groover with king E/2 feeder, two (2) Hermance gang rip saws, one (2) voorwood vinyl cutter, one (1) Sears radial arm saw, one (1) Delta motorized chop saw, nine (9) whirlwind upcut chop saws, one (1) Delta miter saw, one (1) L & L electronic edge gluer, one (1) Weinig molder (8 head), one (1) Weinig molder (6 head), one (1) Weinig molder (6 head, hi-speed), two (2) Delta miter boxes, two (2) Delta radial arm saws, one (1) Hermance gang rip saw, one (1) sanding master wide belt, one (1) Fod band resaw, two (2) Dip chain gang rip saws, two (2) DeWalt radial arm saws, one (1) Rockwell radial arm saw, one (1) Sicar Shaper, one (1) Tannewitz table saw, one (1) SCMI planer, one (1) Weinig profile grinder, one (1) Diehl straight line rip saw, one (1) Makita miter saw knife cutting, and one (1) Schutte Hammermill wood hog;
- (k) six cyclones and one (1) baghouse, each constructed in 1986, combined to control PM emissions from woodcutting equipment in the south building: one (1) 25 HP General Ind. Cyclone (exhausting through stack E1), one (1) 25 HP Honeyville cyclone (exhausting through stack E2), one (1) 100 HP Honeyville cyclone (exhausting through baghouse then stack E3), one (1) 50 HP Claredge cyclone (exhausting through stack E5), two (2) 30 HP Honeyville cyclones (each exhausting through stacks E6 and E7, respectively), and one (1) 20 HP Honeyville baghouse (exhausting through stack E3);
- (l) one (1) compressor, constructed in 1995.

## **SECTION B GENERAL CONDITIONS**

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

### **B.1 Permit No Defense [IC 13]**

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This permit to operate does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

### **B.2 Definitions**

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Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

### **B.3 Effective Date of the Permit [IC13-15-5-3]**

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Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

### **B.4 Permit Term and Renewal [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5]**

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This permit 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 of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

### **B.5 Modification to Permit [326 IAC 2]**

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All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

### **B.6 Annual Notification [326 IAC 2-6.1-5(a)(5)]**

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- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:  
  
Compliance Branch, Office of Air Quality  
Indiana Department of Environmental Management  
100 North Senate Avenue  
Indianapolis, IN 46204
- (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.7 Preventive Maintenance Plan [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days (this time frame is determined on a case by case basis but no more than ninety (90) days) after issuance of this permit, including the following information on each emissions unit:

- (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 Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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.8 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]**

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- (a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.
- (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  
Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.
- (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)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a non-road engine, as defined in 40 CFR 89.2.

**B.9 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]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as

such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (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 processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (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.10 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]**

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Pursuant to [326 IAC 2-6.1-6(d)(3)]:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

**B.11 Annual Fee Payment [326 IAC 2-1.1-7]**

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- (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.12 Credible Evidence [326 IAC 1-1-6]**

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

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

### 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 5-1-3 (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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### C.4 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.5 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 by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:
- (A) Asbestos removal or demolition start date;
- (B) Removal or demolition contractor; or
- (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).
- All required notifications shall be submitted to:
- Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204
- 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 2-7-1(34).
- (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

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

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- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. 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

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 date.
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ (and local agency) not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, (and local agency), if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### Compliance Requirements [326 IAC 2-1.1-11]

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

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

### Compliance Monitoring Requirements

#### C.9 Compliance Monitoring [326 IAC 2-1.1-11]

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

#### C.10 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

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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.11 Response to Excursions or Exceedances

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- (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.

### Record Keeping and Reporting Requirements

#### C.12 Malfunctions Report [326 IAC 1-6-2]

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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.13 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, all record keeping requirements not already legally required shall be implemented when operation begins.

C.14 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
- (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, any reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

## SECTION D.1 EMISSIONS UNITS OPERATION CONDITIONS

### Facility Description: Surface Coating Operations

#### North Building

- (a) two (2) HVLP spray coating booths, each constructed in 1995, each with a maximum capacity of 5300 units per hour, using dry filters for overspray control, and each exhausting through one (1) stack (E8 and E9);
- (b) one (1) vacuum coater, constructed in 1995, with a maximum capacity of 5300 units per hour;
- (c) one (1) Acimall Compo machine, constructed in 1995, with a maximum capacity of 1800 feet per hour. This machine puts a line of wood dough on trim to add decorative accent. It is not a stain or adhesive, but does adhere to the wood;

#### South Building

- (a) one (1) roller coater adhesive, constructed in 1986, with a maximum capacity of 200 units 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.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12, each of the two (2) spray coating booths shall utilize one of the following application methods when applying surface coatings to wood furniture and cabinets,

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

- (a) Particulate from each of the two (2) HVLP spray coating booths 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 the 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.1.3 Preventive Maintenance Plan [326 IAC 1-6-3]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the two (2) HVLP spray coating booths and control devices.

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

**D.1.4 Record Keeping Requirements**

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- (a) To document compliance with Condition D.1.2 the Permittee shall maintain a record of any actions taken if overspray is visibly detected.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.2

## EMISSIONS UNITS OPERATION CONDITIONS

### Facility Description: Woodworking Operations

#### North Building

- (g) miscellaneous woodworking equipment, each constructed in 1986, that includes: one (1) Dima 4 head adjustable sander; two (2) ten inch chop saws, four (4) voorwood vinyl laminator, and one (1) voorwood vinyl splitter;
- (h) one (1) 25 horsepower (HP) Honeyville cyclone, constructed in 1986, for controlling particulate matter (PM) emissions from woodworking equipment in north building, exhausting through one (1) stack (E7);
- (i) one (1) compressor, constructed in 1995.

#### South Building

- (j) miscellaneous woodworking equipment, each constructed in 1986, that includes: one (1) V groover with king E/2 feeder, two (2) Hermance gang rip saws, one (2) voorwood vinyl cutter, one (1) Sears radial arm saw, one (1) Delta motorized chop saw, nine (9) whirlwind upcut chop saws, one (1) Delta miter saw, one (1) L & L electronic edge gluer, one (1) Weinig molder (8 head), one (1) Weinig molder (6 head), one (1) Weinig molder (6 head, hi-speed), two (2) Delta miter boxes, two (2) Delta radial arm saws, one (1) Hermance gang rip saw, one (1) sanding master wide belt, one (1) Fod band resaw, two (2) Dip chain gang rip saws, two (2) DeWalt radial arm saws, one (1) Rockwell radial arm saw, one (1) Sicar Shaper, one (1) Tannewitz table saw, one (1) SCMI planer, one (1) Weinig profile grinder, one (1) Diehl straight line rip saw, one (1) Makita miter saw knife cutting, and one (1) Schutte Hammermill wood hog;
- (k) six cyclones and one (1) baghouse, each constructed in 1986, combined to control PM emissions from woodcutting equipment in the south building: one (1) 25 HP General Ind. Cyclone (exhausting through stack E1), one (1) 25 HP Honeyville cyclone (exhausting through stack E2), one (1) 100 HP Honeyville cyclone (exhausting through baghouse then stack E3), one (1) 50 HP Claredge cyclone (exhausting through stack E5), two (2) 30 HP Honeyville cyclones (each exhausting through stacks E6 and E7, respectively), and one (1) 20 HP Honeyville baghouse (exhausting through stack E3);
- (l) one (1) compressor, constructed in 1995.

(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] [326 IAC 2-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the woodworking operations shall not exceed 9.13 pounds per hour (north building) based on a process weight rate equal to 6,608 pounds of wood per hour and 9.69 pounds per hour (south building) based on a process weight rate equal to 7,219 pounds of wood per hour.

The pound per hour limitation was calculated with the following equation:

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

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

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

Compliance with these limits render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

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

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the woodworking equipment and control devices in the north and south buildings.

### Compliance Determination Requirements

#### D.2.3 Particulate Control

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Pursuant to CP-039-4653-00337 on July 18, 1996, and in order to comply with Condition D.2.1:

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

### Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

#### D.2.4 Visible Emissions Notations

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- (a) Daily visible emission notations of the north building and south building woodworking operation stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### D.2.5 Baghouse Inspections

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An inspection shall be performed each calendar quarter of all bags controlling the south building woodworking operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

#### D.2.6 Broken or Failed Bag Detection

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- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced.
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit.

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

#### D.2.7 Cyclone Inspections

---

An inspection shall be performed each calendar quarter of all cyclones controlling the north building and south building woodworking operation when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

#### D.2.8 Cyclone Failure Detection

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In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

#### D.2.9 Record Keeping Requirements

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- (a) To document compliance with Conditions D.2.4, the Permittee shall maintain records of daily visible emission notations of the north building and south building woodworking operation stack exhaust.
- (b) To document compliance with Conditions D.2.5 and D.2.7, the Permittee shall maintain records of results of inspections required under Conditions D.2.5 and D.2.7 and the dates vents are redirected.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**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).

<b>Company Name:</b>	<b>JEJ Molding</b>
<b>Address:</b>	<b>1940 West Market Street</b>
<b>City:</b>	<b>Nappanee, IN 46550</b>
<b>Phone #:</b>	<b>(574) 773-7941</b>
<b>MSOP #:</b>	<b>039-21031-00337</b>

JEJ Molding is  still in operation.  
 no longer in operation.

JEJ Molding is  in compliance with the requirements of MSOP 039-21031-00337.  
 not in compliance with the requirements of MSOP 039-21031-00337.

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



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

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

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

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

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

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

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

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

Addendum to the Technical Support Document (TSD) for a  
Minor Source Operating Permit (MSOP)

**Source Background and Description**

**Source Name:** JEJ Molding  
**Source Location:** 1940 West Market Street, Nappanee, IN 46550  
**County:** Elkhart  
**SIC Code:** 2431 (Manufacturing of Fabricated Wood Millwork)  
**Application No.:** 039-21031-00337  
**Reviewer:** Nathan C. Bell

On September 28, 2005, the Office of Air Quality (OAQ) had a notice published in The Elkhart Truth, Elkhart, Indiana, stating that JEJ Molding had applied for a Minor Source Operating Permit (MSOP) to operate a stationary wood molding and panel manufacturing source, located at 1940 West Market Street, Nappanee, IN 46550. The notice also stated that the OAQ proposed to issue a MSOP 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.

Upon further review, the OAQ has decided to make the following revisions to the permit with deleted language as ~~strikeouts~~ and new language **bolded**. NOTE: The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes.

**1. Conditions B.7, D.1.4, and D.2.9**

IDEM has determined that the Permittee is not required to keep records of all preventive maintenance. However, where the Permittee seeks to demonstrate that an emergency has occurred, the Permittee must provide, upon request, records of preventive maintenance in order to establish that the lack of proper maintenance did not cause or contribute to the deviation. Therefore, IDEM has deleted paragraph (b) of Section B – Preventive Maintenance and made other minor revisions as follows:

**B.7 Preventive Maintenance Plan [326 IAC 1-6-3]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days (this time frame is determined on a case by case basis but no more than ninety (90) days) after issuance of this permit, including the following information on each emissions unit:
- (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 Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- ~~(b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.~~
- (be)** A copy of the PMP's 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 does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (cd)** 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.

#### D.1.4 Record Keeping Requirements

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- ~~(b) To document compliance with Conditions D.1.3, the Permittee shall maintain a log of those additional inspections prescribed by the Preventive Maintenance Plan.~~
- (be)** All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.2.9 Record Keeping Requirements

---

- ~~(c) To document compliance with Condition D.2.2, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.~~
- (cd)** All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## 2. Condition C.11

IDEM has reconsidered the requirement to develop and follow a Compliance Response Plan. The Permittee will still be required to take reasonable response steps when a compliance monitoring parameter is determined to be out of range or abnormal. Replacing the requirement to develop and follow a Compliance Response Plan with a requirement to take reasonable response steps will ensure that the control equipment is returned to proper operation as soon as practicable, while still allowing the Permittee the flexibility to respond to situations that were not anticipated. The Section D conditions that refer to this condition have been revised to reflect the new condition title, and the following changes have been made to the Section C condition:

#### C.11 Compliance Response Plan – Preparation and Implementation Response to Excursions or Exceedances

---

- ~~(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ, upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:~~

- ~~(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.~~
- ~~(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan, the Permittee shall amend its Compliance Response Plan to include such response steps taken.~~
- ~~(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
  - ~~(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or~~
  - ~~(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.~~
  - ~~(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.~~
  - ~~(4) Failure to take reasonable response steps shall be considered a deviation from the permit.~~~~
- ~~(c) The Permittee is not required to take any further response steps for any of the following reasons:
  - ~~(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.~~
  - ~~(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.~~
  - ~~(3) An automatic measurement was taken when the process was not operating.~~
  - ~~(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.~~~~
- ~~(d) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.~~

- (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.**

### **3. Conditions D.2.3 and D.2.6**

Paragraph (a) of the Broken or Failed Baghouse condition has been deleted. For multi-compartment baghouses, the permit will not specify what actions the Permittee needs to take in response to a broken bag. However, a requirement has been added to Condition D.2.3 requiring the Permittee to notify IDEM if a broken bag is detected and the control device will not be repaired for more than ten (10) days. This notification allows IDEM to take any appropriate actions if the emission unit will continue to operate for a long period of time while the control device is not operating in optimum condition. The permit has been revised as follows:

### D.2.3 Particulate Control

---

Pursuant to CP-039-4653-00337 on July 18, 1996, and in order to comply with Condition D.2.1:

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

### D.2.6 Broken or Failed Bag Detection

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~~In the event that bag failure has been observed:~~

- ~~(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.~~
- (ab) For a single compartment baghouses/dust collectors, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then **controlling emissions from a process operated continuously, a failed units and the associated process will shall be shut down immediately until the failed units have has been repaired or replaced.**
- (b) **For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the emissions unit.**

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

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

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

**Source Background and Description**

**Source Name:** JEJ Molding  
**Source Location:** 1940 West Market Street, Nappanee, IN 46550  
**County:** Elkhart  
**SIC Code:** 2431 (Manufacturing of Fabricated Wood Millwork)  
**Application No.:** 039-21031-00337  
**Reviewer:** Nathan C. Bell

**History**

JEJ Molding was issued a Construction/Operating Permit No. CP-039-4653-00337 on July 18, 1996 for a stationary wood molding and panel manufacturing source, located at 1940 West Market Street, Nappanee, IN 46550. The Office of Air Quality (OAQ) received an application March 28, 2005 from JEJ Molding for a Minor Source Operating Permit (MSOP). The source is applying for an MSOP, as required by 326 IAC 2-6.1-3, for their existing stationary wood molding and panel manufacturing source in order to be in compliance with 326 IAC 2. The MSOP application relates to the continued operation of the following emission units and pollution control equipment:

**Existing Emission Units and Pollution Control Equipment**

**North Building**

- (a) two (2) HVLP spray coating booths, each constructed in 1995, each with a maximum capacity of 5300 units per hour, using dry filters for overspray control, and each exhausting through one (1) stack (E8 and E9);
- (b) one (1) vacuum coater, constructed in 1995, with a maximum capacity of 5300 units per hour;
- (c) one (1) Acimall Compo machine, constructed in 1995, with a maximum capacity of 1800 feet per hour. This machine puts a line of wood dough on trim to add decorative accent. It is not a stain or adhesive, but does adhere to the wood;
- (d) eight (8) natural gas fired heaters, each constructed in 1986, each rated at 0.26 million Btu per hour (MMBtu/hr), and each exhausting through one (1) stack (H11, H12 H13, H14, H15, H16, H17, and H18);
- (e) nine (9) natural gas fired heaters, each constructed in 1986, each rated at 0.1 MMBtu/hr, and each exhausting through one (1) stack (H9, H10 and H32 - H38);
- (f) one (1) natural gas fired heater, constructed in 1995, rated at 2.675 MMBtu/hr, and exhausting through one (1) stack (H31);
- (g) miscellaneous woodworking equipment, each constructed in 1986, that includes: one (1) Dima 4 head adjustable sander; two (2) ten inch chop saws, four (4) voorwood vinyl laminator, and one (1) voorwood vinyl splitter;
- (h) one (1) 25 horsepower (HP) Honeyville cyclone, constructed in 1986, for controlling particulate matter (PM) emissions from woodworking equipment in north building, exhausting through one (1) stack (E7);

- (i) one (1) compressor, constructed in 1995.

### **South Building**

- (a) one (1) roller coater adhesive, constructed in 1986, with a maximum capacity of 200 units per hour;
- (b) six (6) natural gas-fired heaters, each constructed in 1986, each rated at 0.06 MMBtu/hr, and each exhausting through one (1) stack (H25, H26, H27, H28, H29, and H30);
- (c) four (4) natural gas-fired heaters, each constructed in 1986, each rated at 0.05 MMBtu/hr, and each exhausting through one (1) stack (H21, H22, H23, and H24);
- (d) one (1) natural gas-fired heater, constructed in 1986, rated at 0.125 MMBtu/hr, and exhausting through one (1) stack (H6);
- (e) one (1) natural gas-fired heater, constructed in 1986, rated at 0.3 MMBtu/hr, and exhausting through one (1) stack (H5);
- (f) four (4) natural gas-fired heaters, each constructed in 1986, each rated at 0.15 MMBtu/hr, and each exhausting through one (1) stack (H3, H4, H7, and H8);
- (g) one (1) natural gas-fired heater, constructed in 1986, rated at 0.13 MMBtu/hr, and exhausting through one (1) stack (H2);
- (h) one (1) natural gas-fired heater, constructed in 1986, rated at 0.2 MMBtu/hr, and exhausting through one (1) stack (H1);
- (i) two (1) natural gas-fired heaters, each constructed in 1986, each rated at 0.1 MMBtu/hr, and each exhausting through one (1) stack (H19 and H20);
- (j) miscellaneous woodworking equipment, each constructed in 1986, that includes: one (1) V groover with king E/2 feeder, two (2) Hermance gang rip saws, one (2) voorwood vinyl cutter, one (1) Sears radial arm saw, one (1) Delta motorized chop saw, nine (9) whirlwind upcut chop saws, one (1) Delta miter saw, one (1) L & L electronic edge gluer, one (1) Weinig molder (8 head), one (1) Weinig molder (6 head), one (1) Weinig molder (6 head, hi-speed), two (2) Delta miter boxes, two (2) Delta radial arm saws, one (1) Hermance gang rip saw, one (1) sanding master wide belt, one (1) Fod band resaw, two (2) Dip chain gang rip saws, two (2) DeWalt radial arm saws, one (1) Rockwell radial arm saw, one (1) Sicar Shaper, one (1) Tannewitz table saw, one (1) SCMI planer, one (1) Weinig profile grinder, one (1) Diehl straight line rip saw, one (1) Makita miter saw knife cutting, and one (1) Schutte Hammermill wood hog;
- (k) six cyclones and one (1) baghouse, each constructed in 1986, combined to control PM emissions from woodcutting equipment in the south building: one (1) 25 HP General Ind. Cyclone (exhausting through stack E1), one (1) 25 HP Honeyville cyclone (exhausting through stack E2), one (1) 100 HP Honeyville cyclone (exhausting through baghouse then stack E3), one (1) 50 HP Claredge cyclone (exhausting through stack E5), two (2) 30 HP Honeyville cyclones (each exhausting through stacks E6 and E7, respectively), and one (1) 20 HP Honeyville baghouse (exhausting through stack E3);
- (l) one (1) compressor, constructed in 1995.

### **Existing Approvals**

The source was issued a Construction/Operating Permit No. CP-039-4653-00337 on July 18, 1996

**Enforcement Issue**

The source was required to apply for an MSOP pursuant to the compliance schedule contained in 326 IAC 2-6.1-3. IDEM is reviewing this matter and will take appropriate action.

**Stack Summary**

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
H1 - H8, H19 - H24 (14 stacks)	Heaters	24	0.33	NA	NA
H9 - H18 (10 stacks)	Heaters	29	0.33	NA	NA
H25 - H30 (6 stacks)	Heaters	23	0.33	NA	NA
H31 - H38 (8 stacks)	Heaters	NA	NA	NA	NA
E8	Spray Coating Booth	35	1.17	2,900	70
E9	Spray Coating Booth	35	1.17	2,900	70

**Recommendation**

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

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

An application for the purposes of this review was received on March 28, 2005. Additional information was received on July 7, 2005 and July 14, 2005.

**Emission Calculations**

See Appendix A of this TSD for detailed emissions calculations (Appendix A, pages 1 through 4).

**Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit (PTE) 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.”

The following table reflects the existing source potential to emit. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit:

Pollutant	Potential To Emit (tons/year)
PM	374.9
PM-10	50.15
SO <sub>2</sub>	0.02
NO <sub>x</sub>	3.40
VOC	19.1
CO	2.86

HAP's	Potential To Emit (tons/year)
Benzene	negligible
Dichlorobenzene	negligible
Formaldehyde	negligible
n-Hexane	0.06
Toluene	negligible
Lead	negligible
Cadmium	negligible
Chromium	negligible
Manganese	negligible
Nickel	negligible
<b>TOTAL HAPs</b>	<b>0.06</b>

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of PM<sub>10</sub> 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 one hundred (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 PTE (as defined in 326 IAC 2-1.1-1(16)) 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, the source is not subject to the provisions of 326 IAC 2-7.

**County Attainment Status**

The source is located in Elkhart County.

Pollutant	Status
PM10	Attainment or Unclassifiable
PM2.5	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment or Unclassifiable
1-Hour Ozone	Maintenance Attainment
8-Hour Ozone	Basic Nonattainment
CO	Attainment or Unclassifiable
Lead	Attainment or Unclassifiable

- (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 standard. Elkhart 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.
- (b) Elkhart County has been classified as attainment or unclassifiable for all the other regulated 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.
- (c) Elkhart County has been classified as 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.

(d) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 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.

**Source Status**

Existing Source PSD and Emission Offset Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	32.98
PM-10	15.40
SO <sub>2</sub>	0.02
NO <sub>x</sub>	3.40
VOC	19.1
CO	2.86
Worst Single HAP	0.06
Combination HAPs	0.06

- (a) Pursuant to the Construction/Operating Permit No. CP-039-4653-00337 issued on July 18, 1996, the cyclones and the baghouse shall be in operation at all times when woodworking processes are in operation, PM emissions from E1, E2, E3, E4, E5, and E6 combined shall be limited to 9.69 lbs/hr (42.4 tons/yr), and PM emissions from E7 shall be limited to 9.13 lbs/hr (40.0 tons/yr) (based on the requirements of 326 IAC 6-3-2). Thus, the potential to emit PM is limited to less than 250 tons per year. Compliance with these limits render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.
- (b) This source is not a major PSD 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. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (c) This source is not a Emission Offset major stationary source because no regulated nonattainment pollutant is emitted at a rate of 100 tons per year or greater. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

**Part 70 Permit Determination**

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the 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/year.

This status is based on the potential to emit calculations of the source (see Appendix A).

### **Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (b) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR 63, Subpart JJ, Wood Furniture Manufacturing (40 CFR Part 63.800 - 63.808) (326 IAC 20-14-1), because this source is not a major source of HAPs as defined in 40 CFR 63.2.
- (c) This source is not subject to the requirements of the 40 CFR 63, Subpart MMMM, NESHAP for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR Part 63.3880 through 63.3981), because this source is not a major source of HAPs as defined in 40 CFR 63.2 and only surface coats wood molding and panels.
- (d) This source is not subject to the requirements of 40 CFR 63 Subpart OOOO, NESHAP for Printing, Coating, and Dyeing of Fabrics and Other Textiles (63.4280 through 63.4371) (326 IAC 20-77-1), because this source is not a major source of HAPs as defined in 40 CFR 63.2 and only surface coats wood molding and panels.
- (e) This source is not subject to the requirements of the 40 CFR 63, Subpart PPPP, NESHAP for Surface Coating of Plastic Parts and Products (40 CFR Part 63.4480 - 63.4581), because the source is not a major source of HAPs as defined in 40 CFR 63.2 and only surface coats wood molding and panels.
- (f) This source is not subject to the requirements of the 40 CFR 63, Subpart QQQQ, NESHAP for Surface Coating of Wood Building Products (40 CFR Part 63.4680 - 63.4781) (326 IAC 20-79-1), because this source is not a major source of HAPs as defined in 40 CFR 63.2.
- (g) This source is not subject to the requirements of 40 CFR 63, Subpart DDDDD, NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters (63.7480 through 63.7575), because the source is not a major source of HAPs.
- (h) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 20 and 40 CFR Part 61, 63) included in the permit for this source.

### **State Rule Applicability - Entire Source**

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

Pursuant to the Construction/Operating Permit No. CP-039-4653-00337 issued on July 18, 1996, the cyclones and the baghouse shall be in operation at all times when woodworking processes are in operation, PM emissions from E1, E2, E3, E4, E5, and E6 combined shall be limited to 9.69 lbs/hr (42.4 tons/yr), and PM emissions from E7 shall be limited to 9.13 lbs/hr (40.0 tons/yr) (based on the requirements of 326 IAC 6-3-2). Thus, the potential to emit PM from the entire source is limited to less than 250 tons per year. Compliance with these limits render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

#### **326 IAC 2-3 (Emission Offset)**

The requirements of 326 IAC 2-3 (Emission Offset) apply to major sources or major modifications constructed in an area designated as non-attainment. The uncontrolled potential to emit of VOC and NOx are each less than 100 tons per year. Therefore, the requirements of 326 IAC 2-3 (Emission Offset) are not applicable.

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

The requirements of 326 IAC 2-4.1 are not applicable to this source, since 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.

Any change or modification which would increase the potential to emit of any single HAP and combination of HAPs greater than ten (10) and twenty-five (25) tons per year, respectively, shall require prior approval from IDEM, OAQ.

### 326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it is located in Elkhart County, it is not required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, and it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year.

### 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:

- (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) in a six (6) hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

### 326 IAC 6-4 (Fugitive Dust Emissions Limitations)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

## **State Rule Applicability - Individual Facilities**

### 326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)

The requirements of 326 IAC 8-1-6 are not applicable, since each of the emission units at this source does not have the potential to emit greater than twenty-five (25) tons of VOCs per year.

Any change or modification which may increase the potential volatile organic compound emissions to 25 tons per year or more from the surface coating operations must be approved by the Office of Air Quality (OAQ) and be subject to 326 IAC 8-1-6 (General Reduction Requirements) before such change can occur.

## **State Rule Applicability - Surface Coating Operations**

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

- (a) Pursuant to 326 IAC 6-3-1(b)(14), the one (1) vacuum coater, the one (1) Acimall Compo machine, and the one (1) roller coater adhesive are each exempt from the requirements of 326 IAC 6-3, because the potential particulate emissions are each less than five hundred fifty-one thousandths (0.551) pound per hour.

- (b) Each of the two (2) HVLP spray coating booths has potential particulate emissions that are greater than five hundred fifty-one thousandths (0.551) pound per hour and has the potential to use greater than five (5) gallons per day of surface coatings. Therefore, the requirements of 326 IAC 6-3-2 are applicable to each of the spray coating booths. Pursuant to 326 IAC 6-3-2(d), particulate from each of the two (2) HVLP spray coating booths shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

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.

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.

#### 326 IAC 8-2-10 (Volatile Organic Compounds, Flat Wood Panels Manufacturing Operations)

- (a) Pursuant to 326 IAC 8-2-1(4), the one (1) roller coater adhesive, the one (1) vinyl wrap laminator and the one (1) vacuum coater are each not subject to the requirements of 326 IAC 8-2-10, since they have VOC emissions less than or equal to fifteen (15) pounds per day before add-on controls. Pursuant to 326 IAC 8-2-10, the one (1) vinyl wrap laminator and the one (1) vacuum coater are each not subject to the requirements of 326 IAC 8-2-10, since they apply surface coatings to luan (softwood), softwood particleboard, and/or Medium Density Fiberboard (MDF), which are not considered "hardwood particleboard", "hardwood plywood", or "hardboard paneling", as defined in 326 IAC 8-2-10(a).
- (b) Each of the two (2) spray coating booths have VOC emissions greater than fifteen (15) pounds per day before add-on controls. Based on information provided by the source on July 14, 2005, the source occasionally manufactures panels made of solid hardwood (oak, maple, hard maple, cherry and ash) that are ultimately used for cabinet doors and end panels for cabinets and furniture. Pursuant to 326 IAC 8-2-10(a), each of the two (2) spray coating booths are not subject to the requirements of 326 IAC 8-2-10, since the solid hardwood used at this source to manufacture panels is not considered "hardwood particleboard", "hardwood plywood", or "hardboard paneling", as defined in 326 IAC 8-2-10(a).

#### 326 IAC 8-2-12 (Volatile Organic Compounds, Wood Furniture and Cabinet Coating)

- (a) Pursuant to 326 IAC 8-2-1(4), the one (1) roller coater adhesive, the one (1) vinyl wrap laminator, and the one (1) vacuum coater is not subject to the requirements of 326 IAC 8-2-12, since they have VOC emissions less than or equal to fifteen (15) pounds per day before add-on controls.
- (b) The requirements of 326 IAC 8-2-12 are applicable to each of the two (2) spray coating booths, since they each have VOC emissions greater than fifteen (15) pounds per day before add-on controls and they apply surface coatings to wood panels and parts used as furniture components. Based on information provided by the source on July 14, 2005, the source occasionally manufactures furniture components (cabinet stiles, door stiles, door interiors and other furniture parts) for desks, kitchen islands, hutches and cabinets that are made of solid hardwood (oak, maple, hard maple, cherry and ash). Pursuant to 326 IAC 8-2-12(b), the owner of a wood furniture or wood cabinets surface coating operation shall apply all coating

material, with the exception of no more than ten (10) gallons per day used for touch-up and repair operations, using one (1) or more of the allowable application methods specified in 326 IAC 8-2-12(b). Both of the two (2) spray coating booths use High Volume, Low Pressure (HVLP) application method, which is an accepted alternative method of application for Air Assisted Airless Spray Application, which is a method allowed in the rule.

326 IAC 8-11-3 (Volatile Organic Compounds, Wood Furniture Coatings)

The requirements of 326 IAC 8-11-3 are not applicable to this source, since this source is not located in Lake, Porter, Clark, or Floyd County.

**State Rule Applicability - Woodworking Operations**

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

The requirements of 326 IAC 6-3 are applicable to woodworking operations in the north and south buildings. Pursuant to 326 IAC 6-3-2(e)(2) and CP-039-4653-00337, the particulate emissions from E1, E2, E3, E4, E5, and E6 combined (south building) shall not exceed 9.69 pounds per hour based on a process weight rate equal to 3.6 tons of wood per hour (7,219 pounds of wood per hour consisting of 1667 board feet per hour of solid hardwood and 26 board feet per hour of Medium Density Fiberboard (MDF)) and particulate emissions from E7 (north building) shall not exceed 9.13 pounds per hour based on a process weight rate equal to 3.3 tons of wood per hour (6,608 pounds of wood per hour consisting of 980 board feet per hour of soft particleboard and 770 board feet per hour of luan).

In order to comply with the allowable rate of emission: (1) the cyclone for particulate control shall be in operation and control emissions from the woodworking operations in north building at all times that the woodworking operation in the north building is in operation; and (2) the cyclones and the baghouse for particulate control shall be in operation and control emissions from the woodworking operations in south building at all times that the woodworking operation in the south building is in operation. The allowable rate of emission was calculated as follows:

Interpolation of the data in the table in 326 IAC 6-3-2(e)(2) for the process weight rates up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

Since the controlled/limited emissions of PM is less than 250 tons per year, compliance with these limits render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

**State Rule Applicability – Natural Gas Combustion Sources**

326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)

The natural gas-fired space heaters are not subject to 326 IAC 6-2 as they are not sources of indirect heating.

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

Pursuant to 326 IAC 6-3-1(b)(14), each of the natural gas-fired heaters are exempt from the requirements of 326 IAC 6-3, because they each have potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

### 326 IAC 7-1 (Sulfur dioxide emission limitations: applicability)

Each of the natural gas-fired heaters not subject to the requirements of 326 IAC 7-1, because the potential and the actual emissions are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.

### Testing Requirements

While IDEM may require compliance testing at any specific time to determine if the source is in compliance with an applicable limit or standard, compliance testing is not required for this approval. Compliance testing is not required for the surface coating operations because the spray coating booths shall be controlled by a dry particulate filter, in order to comply with 326 IAC 6-3-2. Compliance testing is not required for the woodworking operations since the cyclones and baghouse shall be in operation at all times when the woodworking operation is in operation, in order to comply with 326 IAC 6-3-2.

### Compliance Requirements

Permits issued under 326 IAC 2-6.1 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. 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 in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The woodworking operation has applicable compliance monitoring conditions as specified below:

- (a) Daily visible emission notations of the north building and south building woodworking operation stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.
- (b) An inspection shall be performed each calendar quarter of all bags controlling the south building woodworking operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

- (c) In the event that bag failure has been observed:
- (i) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit. If operations continue after bag failure is observed and it will be 10 days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
  - (ii) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (d) An inspection shall be performed each calendar quarter of all cyclones controlling the north building and south building woodworking operation when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.
- (e) In the event that cyclone failure has been observed, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation shall be considered a deviation from this permit.

These monitoring conditions are necessary because the cyclones and the baghouse for the woodworking operation must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). Compliance with the 326 IAC 6-3-2 limits render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

## Conclusion

The operation of these facilities shall be subject to the conditions of the attached MSOP No 039-21031-00337.

**Appendix A: Emissions Calculations  
Emission Summary**

**Company Name: JEJ Molding**  
**Address City IN Zip: 1940 West Market St., Nappanee, IN 46550**  
**Permit Number: 039-21031**  
**Plt ID: 039-00337**  
**Reviewer: Nathan C. Bell**  
**Date: September 20, 2005**

<b>Uncontrolled Potential Emissions (tons/year)</b>					
Emissions Generating Activity					
Category	Pollutant	Surface Coatings	Natural Gas Combustion	Woodworking	TOTAL
Criteria Pollutants	PM	20.0	0.06	354.8	374.9
	PM10	20.0	0.26	29.9	50.15
	SO2		0.02		0.02
	NOx		3.40		3.40
	VOC	18.9	0.19		19.1
	CO		2.86		2.86
Hazardous Air Pollutants	Benzene		7.1E-05		7.1E-05
	Dichlorobenzene		4.1E-05		4.1E-05
	Formaldehyde		2.6E-03		2.6E-03
	n-Hexane		0.06		0.06
	Toluene		1.2E-04		1.2E-04
	Lead		1.7E-05		1.7E-05
	Cadmium		3.7E-05		3.7E-05
	Chromium		4.8E-05		4.8E-05
	Manganese		1.3E-05		1.3E-05
	Nickel		7.1E-05		7.1E-05
	<b>Totals</b>		<b>0</b>	<b>0.06</b>	<b>0</b>
<b>Worse Case HAP</b>					<b>0.06</b>

Total emissions based on rated capacity at 8,760 hours/year.

<b>Controlled Potential Emissions (tons/year)</b>					
Emissions Generating Activity					
Category	Pollutant	Surface Coatings	Natural Gas Combustion	Woodworking	TOTAL
Criteria Pollutants	PM	0.60	0.06	32.3	32.98
	PM10	0.60	0.26	14.5	15.40
	SO2		0.02		0.02
	NOx		3.40		3.40
	VOC	18.9	0.19		19.1
	CO		2.86		2.86
Hazardous Air Pollutants	Benzene		7.1E-05		7.1E-05
	Dichlorobenzene		4.1E-05		4.1E-05
	Formaldehyde		2.6E-03		2.6E-03
	n-Hexane		0.06		0.06
	Toluene		1.2E-04		1.2E-04
	Lead		1.7E-05		1.7E-05
	Cadmium		3.7E-05		3.7E-05
	Chromium		4.8E-05		4.8E-05
	Manganese		1.3E-05		1.3E-05
	Nickel		7.1E-05		7.1E-05
	<b>Totals</b>		<b>0</b>	<b>0.06</b>	<b>0</b>
<b>Worse Case HAP</b>					<b>0.06</b>

Total emissions based on rated capacity at 8,760 hours/year.

**Appendix A: Emissions Calculations  
Surface Coatings**

**Company Name: JEJ Molding**  
**Address City IN Zip: 1940 West Market St., Nappanee, IN 46550**  
**Permit Number: 039-21031**  
**Plt ID: 039-00337**  
**Reviewer: Nathan C. Bell**  
**Date: September 20, 2005**

**Volatile Organic Comounds (VOC) and Particulate Matter (PM)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water + Non-VOCs	Weight % Solids	Weight % VOCs	Volume % Water + Non-VOCs	Volume % Solids	Potential Paint Usage (gal/unit)	Maximum Capacity (unit/hour)	Maximum Usage (gal/day)*	Maximum Usage (lbs/hour)	Pounds VOC per gallon of coating less water and non-VOCs	Pounds VOC per gallon of coating	Potential VOC (lbs/hr)	Potential VOC (lbs/day)	Potential VOC (tons/year)	Particulate Matter Potential (lb/hr)	Particulate Matter Potential (tons/yr)	lb VOC per gal solids	Transfer Efficiency
<b>Spray Booth 1 (SB-1) or Spray Booth 2 (SB-2)</b>																				
Topcoat (S-1347)	8.52	60.40%	49.01%	39.60%	11.39%	50.14%	33.44%	0.000387	5300	49.2	17.48	1.95	0.97	1.99	47.77	8.72	1.73	7.58	2.90	75%
Topcoat (S-1482)	8.95	67.37%	57.73%	32.63%	9.64%	60.02%	29.88%	0.000387	5300	49.2	18.36	2.16	0.86	1.77	42.47	7.75	1.50	6.56	2.89	75%
Topcoat (S-1345)	8.50	68.4%	67.38%	31.57%	1.05%	69.81%	29.14%	0.000387	5300	49.2	17.43	0.30	0.09	0.18	4.39	0.80	1.38	6.03	0.31	75%
<b>Spray Booth 1 (SB-1) or Spray Booth 2 (SB-2)</b>																				
Primer (SB-377)	10.11	52.08%	42.99%	47.92%	9.09%	52.20%	34.05%	0.001	1900	45.6	19.21	1.92	0.92	1.75	41.91	7.65	2.30	10.08	2.70	75%
<b>Spray Booth 1 (SB-1), Spray Booth 2 (SB-2), or Vacuum Coater 1 (VC-1)</b>																				
Stain (WBS-269)	8.60	82.93%	80.28%	17.07%	2.65%	82.11%	15.25%	0.000279	5300	35.5	12.72	1.27	0.23	0.34	8.09	1.48	0.54	2.38	1.49	75%
Stain (WBS-410)	8.38	99.18%	99.05%	0.82%	0.13%	99.44%	0.43%	0.000279	5300	35.5	12.39	1.95	0.01	0.02	0.39	0.07	0.03	0.11	2.53	75%
Stain (WBS-164)	8.46	86.74%	86.14%	13.26%	0.60%	87.43%	11.97%	0.000279	5300	35.5	12.51	0.40	0.05	0.08	1.80	0.33	0.41	1.82	0.42	75%
Stain (WBS-424)	8.37	97.33%	97.02%	2.67%	0.31%	97.42%	2.27%	0.000279	5300	35.5	12.38	1.01	0.03	0.04	0.92	0.17	0.08	0.36	1.14	75%
Stain (WBS-425)	8.51	94.49%	93.60%	5.51%	0.89%	95.12%	4.01%	0.000279	5300	35.5	12.58	1.55	0.08	0.11	2.69	0.49	0.17	0.76	1.89	75%
Stain (WBS-426)	8.38	98.40%	98.13%	1.60%	0.27%	98.71%	1.01%	0.000279	5300	35.5	12.39	1.75	0.02	0.03	0.80	0.15	0.05	0.22	2.24	75%
Stain (WBS-427)	8.51	95.80%	94.70%	4.20%	1.10%	96.34%	2.61%	0.000279	5300	35.5	12.58	2.56	0.09	0.14	3.32	0.61	0.13	0.58	3.59	75%
<b>Maximum (Topcoat + Primer + Stain)</b>										<b>130.3</b>	<b>50.3</b>			<b>4.07</b>	<b>97.8</b>	<b>17.8</b>	<b>4.57</b>	<b>20.0</b>		
<b>Vinyl Wrap</b>																				
56-5343 Adhesive	9.10	42.22%	42.0%	57.8%	0.22%	45.0%	50.0%	0.002	6250	300.0	113.75	0.04	0.02	0.25	6.01	1.10	0	0	0.04	100%
<b>Compo Machine</b>																				
HC Natural Versafil	7.72	52.4%	52.4%	47.6%	0.0%	0.0%	38.8%	0.0045	1800	194.4	62.53	0	0	0	0	0	0	0	0	100%

<b>Total Uncontrolled Maximum Emissions from SB-1, SB-2, VC-1, Vinyl Wrap, and Compo Machine =</b>	<b>4.32</b>	<b>103.8</b>	<b>18.9</b>	<b>4.57</b>	<b>20.0</b>
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**METHODOLOGY**

Maximum Usage (gal/day) = Potential Paint Usage (gallons/unit) \* maximum capacity (units/hour) \* 24 hours/day  
 Maximum Usage (lbs/hr) = Maximum Usage (gal/day) \* Density (lb/gal) / (24 hour/day)  
 Pounds of VOC per Gallon Coating less Water and non-VOCs = (Density (lb/gal) \* Weight % VOCs) / (1-Volume % water and non-VOCs)  
 Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % VOCs)  
 Potential VOC Pounds per Hour = Maximum Usage (lbs/hr) \* Weight % VOCs  
 Potential VOC Pounds per Day = Potential VOC (lbs/hr) \* (24 hours/day)  
 Potential VOC Tons per Year = Potential VOC (lbs/day) \* (365 days/yr) \* (1 ton/2000 lbs)  
 Particulate Potential Tons per Year = Density (lbs/gal) \* Maximum Usage (gal/day) \* (Weight % Solids) \* (1-Transfer efficiency) \* (365 days/yr) \* (1 ton/2000 lbs)  
 Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % VOCs) / (Volume % solids)

<b>Control Efficiency:</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>97.0%</b>	<b>97.0%</b>
<b>Controlled Emissions</b>	<b>4.32</b>	<b>103.8</b>	<b>18.9</b>	<b>0.14</b>	<b>0.60</b>

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

**Company Name: JEJ Molding**  
**Address City IN Zip: 1940 West Market St., Nappanee, IN 46550**  
**Permit Number: 039-21031**  
**Plt ID: 039-00337**  
**Reviewer: Nathan C. Bell**  
**Date: September 20, 2005**

Emission Unit	Number of Units	Unit Heat Input Capacity MMBtu/hr	Combined Total Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Pollutant					
					PM*	PM10*	SO2	NOx**	VOC	CO
Emission Factor (lb/MMCF)					1.9	7.6	0.6	100	5.5	84.0
Potential Emission tons/yr					PM*	PM10*	SO2	NOx**	VOC	CO
Radiant Heaters	8	0.260	2.1	18.22	0.017	0.069	0.005	0.911	0.050	0.765
Radiant Heaters	9	0.100	0.9	7.88	0.007	0.030	0.002	0.394	0.022	0.331
Forced Air Heater	1	2.675	2.7	23.43	0.022	0.089	0.007	1.172	0.064	0.984
Radiant Heaters	6	0.060	0.4	3.15	0.003	0.012	0.001	0.158	0.009	0.132
Radiant Heaters	4	0.050	0.2	1.75	0.002	0.007	0.001	0.088	0.005	0.074
Radiant Heater	1	0.125	0.1	1.10	0.001	0.004	0.000	0.055	0.003	0.046
Radiant Heater	1	0.300	0.3	2.63	0.002	0.010	0.001	0.131	0.007	0.110
Radiant Heaters	4	0.150	0.6	5.26	0.005	0.020	0.002	0.263	0.014	0.221
Radiant Heater	1	0.130	0.1	1.14	0.001	0.004	0.000	0.057	0.003	0.048
Radiant Heater	1	0.200	0.2	1.75	0.002	0.007	0.001	0.088	0.005	0.074
Radiant Heaters	2	0.100	0.20	1.75	1.7E-03	0.007	0.001	0.088	0.005	0.074
<b>Totals</b>	<b>38</b>		<b>7.8</b>		<b>0.065</b>	<b>0.259</b>	<b>0.020</b>	<b>3.403</b>	<b>0.187</b>	<b>2.859</b>

Pollutant	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Emission Factor (lb/MMCF)	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Emission Unit	Potential Emission tons/yr									
	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Radiant Heaters	1.9E-05	1.1E-05	6.8E-04	0.016	3.1E-05	4.6E-06	1.0E-05	1.3E-05	3.5E-06	1.9E-05
Radiant Heaters	8.3E-06	4.7E-06	3.0E-04	0.007	1.3E-05	2.0E-06	4.3E-06	5.5E-06	1.5E-06	8.3E-06
Forced Air Heater	2.5E-05	1.4E-05	8.8E-04	0.021	4.0E-05	5.9E-06	1.3E-05	1.6E-05	4.5E-06	2.5E-05
Radiant Heaters	3.3E-06	1.9E-06	1.2E-04	0.003	5.4E-06	7.9E-07	1.7E-06	2.2E-06	6.0E-07	3.3E-06
Radiant Heaters	1.8E-06	1.1E-06	6.6E-05	0.002	3.0E-06	4.4E-07	9.6E-07	1.2E-06	3.3E-07	1.8E-06
Radiant Heater	1.1E-06	6.6E-07	4.1E-05	0.001	1.9E-06	2.7E-07	6.0E-07	7.7E-07	2.1E-07	1.1E-06
Radiant Heater	2.8E-06	1.6E-06	9.9E-05	0.002	4.5E-06	6.6E-07	1.4E-06	1.8E-06	5.0E-07	2.8E-06
Radiant Heaters	5.5E-06	3.2E-06	2.0E-04	0.005	8.9E-06	1.3E-06	2.9E-06	3.7E-06	1.0E-06	5.5E-06
Radiant Heater	1.2E-06	6.8E-07	4.3E-05	0.001	1.9E-06	2.8E-07	6.3E-07	8.0E-07	2.2E-07	1.2E-06
Radiant Heater	1.8E-06	1.1E-06	6.6E-05	0.002	3.0E-06	4.4E-07	9.6E-07	1.2E-06	3.3E-07	1.8E-06
Radiant Heaters	1.8E-06	1.1E-06	6.6E-05	0.002	3.0E-06	4.4E-07	9.6E-07	1.2E-06	3.3E-07	1.8E-06
<b>Totals</b>	<b>7.1E-05</b>	<b>4.1E-05</b>	<b>2.6E-03</b>	<b>0.061</b>	<b>1.2E-04</b>	<b>1.7E-05</b>	<b>3.7E-05</b>	<b>4.8E-05</b>	<b>1.3E-05</b>	<b>7.1E-05</b>

\*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

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

**Methodology**

Potential Throughput (MMCF) = Combined Total Heat Input Capacity (MMBtu/hr) \* 8,760 hrs/yr \* 1 MMCF/1,000 MMBtu

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

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)

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu, MMCF = 1,000,000 Cubic Feet of Gas

**Abbreviations**

PM = Particulate Matter

NOx = Nitrous Oxides

DCB = Dichlorobenzene

Cr = Chromium

PM10 = Particulate Matter (<10 um)

VOC = Volatile Organic Compounds

Pb = Lead

Mn = Manganese

SO2 = Sulfur Dioxide

CO = Carbon Monoxide

Cd = Cadmium

Ni = Nickel

**Appendix A: Emissions Calculations  
Particulate Matter Emissions from Woodworking**

**Company Name:** JEJ Molding  
**Address City IN Zip:** 1940 West Market St., Nappanee, IN 46550  
**Permit Number:** 039-21031  
**Plt ID:** 039-00337  
**Reviewer:** Nathan C. Bell  
**Date:** September 20, 2005

Source ID	Particulate Matter Control Equipment Description	Collection Efficiency (%)**		Exhaust Flow Rate (acfm)	Outlet Grain Loading (grains/cf)	Potential Controlled Emissions (lbs/hr)***		Potential Controlled Emissions (tons/yr)***		Potential Uncontrolled Emissions (lbs/hr)		Potential Uncontrolled Emissions (tons/yr)	
		PM	PM10			PM	PM10	PM	PM10	PM	PM10	PM	PM10
<b>South Building</b>													
E-1	Cyclone A	94.0%	50%	7100	0.002	0.12	0.05	0.5	0.24	2.0	0.11	8.9	0.48
E-2	Cyclone B	91.0%	50%	7100	0.019	1.2	0.5	5.1	2.3	12.8	1.04	56.3	4.6
E-3	Cyclone C/Baghouse D	99.8%	99.8%	4500	0.0001	0.004	0.002	0.02	0.01	1.9	0.87	8.4	3.8
E-4	Cyclone G	94.0%	50%	8000	0.0001	0.007	0.003	0.03	0.01	0.11	0.01	0.5	0.03
E-5	Cyclone E	91.0%	50%	15800	0.01	1.4	0.6	5.9	2.7	15.0	1.22	65.9	5.3
E-6	Cyclone F	90.0%	50%	8700	0.043	3.2	1.4	14.0	6.3	32.1	2.89	140.4	12.6
<b>Subtotal</b>						<b>5.8</b>	<b>2.6</b>	<b>25.6</b>	<b>11.5</b>	<b>64.0</b>	<b>6.1</b>	<b>280.5</b>	<b>26.8</b>
<b>North Building</b>													
E-7	Cyclone H	91.0%	0%	6600	0.027	1.5	0.7	6.7	3.0	17.0	0.69	74.3	3.0
<b>Subtotal</b>						<b>1.5</b>	<b>0.7</b>	<b>6.7</b>	<b>3.0</b>	<b>17.0</b>	<b>0.7</b>	<b>74.3</b>	<b>3.0</b>
<b>TOTALS</b>						<b>7.4</b>	<b>3.3</b>	<b>32.3</b>	<b>14.5</b>	<b>81.0</b>	<b>6.8</b>	<b>354.8</b>	<b>29.9</b>

PM = PM100 = particulates with an aerodynamic diameter smaller than 100 micrometers

\*\* Assume cyclone PM10 control efficiencies of 50% based on AP 42, Appendix B.2, Table B.2-3. Cyclone C/Baghouse D control efficiency is for both PM10 and PM.

\*\*\* Assume exhaust is 100% by weight PM and 45% PM10 by weight, based on information provided by the source

**Methodology**

Potential Controlled Emissions (lbs/hr) = Outlet Loading (grains/cf) \* Exhaust Flow Rate (acfm) \* 1 lb/7,000 grains \* 60 min/hr

Potential Uncontrolled Emissions (lbs/hr) = Potential Controlled Emissions (lbs/hr) / (1 - Control Efficiency)

Emissions (tons/yr) = Emissions (lbs/hr) \* 8760 hr/yr \* 1 ton/2,000 lbs

**Compliance with 326 IAC 6-3-2:**

<u>South Building</u>	<u>North Building</u>
Allowable Emissions, $E = 4.10 * P^{0.67}$ (for weight rates up to 60,000 lb/hr) where $E =$ emissions in lbs/hr $P =$ process weight in tons/hr $P = 7219$ lbs/hr $= 3.61$ tons/hr  Allowable PM Emissions, $E = 9.69$ lbs/hr $= 232.5$ lbs/day $= 42.4$ tons/yr  The use of cyclones and baghouses ensures compliance with the limits above.	Allowable Emissions, $E = 4.10 * P^{0.67}$ (for weight rates up to 60,000 lb/hr) where $E =$ emissions in lbs/hr $P =$ process weight in tons/hr $P = 6608$ lbs/hr $= 3.30$ tons/hr  Allowable PM Emissions, $E = 9.13$ lbs/hr $= 219.2$ lbs/day $= 40.0$ tons/yr  The use of cyclones and baghouses ensures compliance with the limits above.

In south building, E1, E2, E3, E4, E5 and E6 (Cyclones A, B, C, E, F and G plus Baghouse D) are used to control an area that processes 7219 lb/hr of raw material.

In north building, E7 (Cyclone H) is used to control an area that processes 6608 lb/hr of raw material.