

**CONSTRUCTION PERMIT
AND ENHANCED NEW SOURCE REVIEW (ENSR)
OFFICE OF AIR MANAGEMENT**

**Batesville Manufacturing, Inc. (Options Plant)
705 East Pearl Street
Batesville, Indiana 47006**

is hereby authorized to construct

- (a) One (1) metal urn surface coating line capable of coating 36 urns per hour, consisting of two (2) spray booths, identified as P-M-1 and P-M-2, each utilizing a high volume low pressure (HVLP) spray equipment and dry filters for particulate matter control, and exhausting through one (1) stack ID S-M-1;
- (b) One (1) wood urn surface coating line capable of coating 32 urns per hour, consisting of two (2) spray booths, identified as P-W-1 and P-W-2, each utilizing a high volume low pressure (HVLP) spray equipment and dry filters for particulate matter control, and exhausting through one (1) stack ID S-W-1; and
- (c) One (1) baghouse, identified as BW-1, used to control the existing wood working facilities (WW-1) with a maximum flow rate of 21,000 cfm.

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP-137-10452-00016	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

Construction Conditions

General Construction Conditions

1. That the data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
2. That this permit to construct 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.

Effective Date of the Permit

3. That pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.
4. That pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. That notwithstanding Construction Condition No. 6, all requirements and conditions of this construction 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).

First Time Operation Permit

6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:
 - (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
 - (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
 - (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
 - (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).
 - (e) The Permittee has submitted their Part 70 permit (T-137-7280-00016) on November 25, 1996 for the existing source. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

7. That when the facility is constructed and placed into operation the following operation conditions shall be met:

Operation Conditions

General Operation Conditions

1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
2. That the permittee shall 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.

Preventive Maintenance Plan

3. That pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:
 - (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
 - (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
 - (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

Transfer of Permit

4. That pursuant to 326 IAC 2-1-6 (Transfer of Permits):
 - (a) In the event that ownership of this burial caskets and urns manufacturer is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
 - (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
 - (c) The OAM shall reserve the right to issue a new permit.

Permit Revocation

5. That pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and 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 326 IAC 2-1 (Permit Review Rules).

Availability of Permit

6. That pursuant to 326 IAC 2-1-3(l), the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM, (local agency if applicable) or other public official having jurisdiction.

Malfunction Condition

7. That 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 Management (OAM) 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 OAM, 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]

PSD Minor Source Limit

8. That the input volatile organic compounds of the metal and wood surface coating lines shall be limited to less than 40 tons per twelve (12) month period, rolled on a monthly basis. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply.

Annual Emission Reporting

9. That pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31.

Opacity Limitations

10. That pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

Visible Emission Notations

11. That visible emission notations of all exhaust to the atmosphere from surface coating lines shall be performed once per working shift. A trained employee will record whether emissions are normal or abnormal.
- (a) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, 80% of the time, the process is in operation, not counting start up or shut down time.
 - (b) In the case of batch or discontinuous operation, readings shall be taken during that part of the operation specified in the facility's specific condition prescribing visible emissions.
 - (c) 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 and abnormal visible emissions for that specific process.
 - (d) The Preventive Maintenance Plan for this facility shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

12. That pursuant to 326 IAC 6-3 (Process Operations):

- (a) The dry filters for particulate matter overspray control shall be in operation at all times

when the metal and wood surface coating lines are in operation.

- (b) The metal and wood surface coating lines shall comply with 326 IAC 6-3-2(c) using the following equation:

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

- (c) Daily inspections shall be performed to verify the placement, integrity and particulate loading of the filters.
- (d) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

MACT Synthetic Minor Limitation

13. That the input of any single and total hazardous air pollutants (HAP), including clean up solvent, minus the HAP solvent shipped out, delivered to the applicators of the treatment and surface coating facility, for the metal and wood surface coating lines, shall be limited to less than 10 and 25 tons per twelve (12) month period, respectively, rolled on a monthly basis. Therefore, the Maximum Achievable Control Technology (MACT) requirements of 326 IAC 2-4.1-1 will not apply.

BACT Synthetic Minor Limitation

14. That input volatile organic compounds (VOC) including clean up solvent, minus the VOC solvent shipped out, delivered to the applicators of the metal coating line shall be limited to less than 25 tons per twelve (12) month period, rolled on a monthly basis. Therefore, the Best Available Control Technology (BACT) requirements of 326 IAC 8-1-6 will not apply.

Volatile Organic Compound (VOC) Limitations

15. That pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet coating), the surface coatings applied to wood furniture and/or wood components in the wood surface coating line shall utilize one or more of the following application methods:

Airless Spray Application	Air-Assisted Airless Spray Application
Electrostatic Spray Application	Electrostatic Bell or Disc Application
Heated Airless Spray Application	Roller Coating
Brush or Wipe Application	Dip-and-Drain Application
High Volume Low Pressure HVLP	Aerosol Spray Cans

High volume low pressure spray is an acceptable alternative application of air-assisted airless spray. High volume low pressure (HVLP) spray means technology used to apply coating to a 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.

Reporting Requirements

16. That a log of information necessary to document compliance with operation permit condition nos. 8, 13, and 14 shall be maintained. These records shall be kept for at least the past 36 month period and made available upon request to the Office of Air Management (OAM).

- (a) A quarterly summary shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within thirty (30) calendar days after the end of the quarter being reported in the format attached. These records shall include the coating, thinner and clean up solvent usage, material safety data sheet (MSDS) and the date of use.

- (b) Unless otherwise specified in this permit, any notice, report, or other submissions required by this permit shall be timely if:
- (i) Postmarked on or before the date it is due; or
 - (ii) Delivered by any other method if it is received and stamped by IDEM, OAM on or before the date it is due.
- (c) All instances of deviations from any requirements of this permit must be clearly identified in such reports.
- (d) Any corrective actions taken as a result of an exceedance of a limit, an excursion from the parametric values, or a malfunction that may have caused excess emissions must be clearly identified in such reports.
- (e) The first report shall cover the period commencing the postmarked submission date of the Affidavit of Construction.

Open Burning

17. That the permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6.

Emergency Reduction Plans

18. Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):
- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on November 20, 1998..
 - (b) If the ERP is disapproved by IDEM, OAM, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
 - (c) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
 - (d) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

- (e) Upon direct notification by IDEM, OAM, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate level. [326 IAC 1-5-3]

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR MANAGEMENT
 COMPLIANCE DATA SECTION**

Quarterly Report

Source Name: Batesville Manufacturing, Inc. (Options Plant)
 Source Address: 705 East Pearl Street, Batesville, IN 47006
 Mailing Address: 1000 East Pearl Street, Batesville, IN 47006
 Permit No.: CP-137-10452-00016
 Facility: Metal and Wood Surface Coating Lines of Options Plant.
 Parameter: Single hazardous air pollutants (HAPs)
 Limit: The single HAP usage is limited to less than 10 tons per twelve (12) month period, rolled on a monthly basis. During the first 11 months of this permit, the single HAP usage shall be limited such that the total single HAP usage divided by the accumulated months of operation shall not exceed 0.8325 tons per month.

YEAR: _____

Month	Total Single HAP Emissions This Month (tons)	Previous 11 Month Single HAP Emissions (tons)	12 Month Total Single HAP Emissions (tons)
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR MANAGEMENT
 COMPLIANCE DATA SECTION**

Quarterly Report

Source Name: Batesville Manufacturing, Inc. (Options Plant)
 Source Address: 705 East Pearl Street, Batesville, IN 47006
 Mailing Address: 1000 East Pearl Street, Batesville, IN 47006
 Permit No.: CP-137-10452-00016
 Facility: Metal and Wood Surface Coating Lines of Options Plant.
 Parameter: Total hazardous air pollutants (HAPs)
 Limit: The total HAP usage is limited to less than 25 tons per twelve (12) month period, rolled on a monthly basis. During the first 11 months of this permit, the total HAP usage shall be limited such that the total HAP usage divided by the accumulated months of operation shall not exceed 2.0825 tons per month.

YEAR: _____

Month	Total HAP Emissions This Month (tons)	Previous 11 Month HAP Emissions (tons)	12 Month Total HAP Emissions (tons)
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Quarterly Report

Source Name: Batesville Manufacturing, Inc. (Options Plant)
Source Address: 705 East Pearl Street, Batesville, IN 47006
Mailing Address: 1000 East Pearl Street, Batesville, IN 47006
Permit No.: CP-137-10452-00016
Facility: Metal Surface Coating Line of Options Plant.
Parameter: volatile organic compounds (VOC)
Limit: The VOC usage is limited to less than 25 tons per twelve (12) month period, rolled on a monthly basis. During the first 11 months of this permit, the VOC usage shall be limited such that the total VOC usage divided by the accumulated months of operation shall not exceed 2.0825 tons per month.

YEAR: _____

Month	Total VOC Emissions This Month (tons)	Previous 11 Month VOC Emissions (tons)	12 Month Total VOC Emissions (tons)
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR MANAGEMENT
 COMPLIANCE DATA SECTION**

Quarterly Report

Source Name: Batesville Manufacturing, Inc. (Options Plant)
 Source Address: 705 East Pearl Street, Batesville, IN 47006
 Mailing Address: 1000 East Pearl Street, Batesville, IN 47006
 Permit No.: CP-137-10452-00016
 Facility: Metal and Wood Surface Coating Lines of Options Plant
 Parameter: volatile organic compounds (VOC)
 Limit: The VOC usage is limited to less than 40 tons per twelve (12) month period, rolled on a monthly basis. During the first 11 months of this permit, the VOC usage shall be limited such that the total VOC usage divided by the accumulated months of operation shall not exceed 3.333 tons per month.

YEAR: _____

Month	Total VOC Emissions This Month (tons)	Previous 11 Month VOC Emissions (tons)	12 Month Total VOC Emissions (tons)
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

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. The requirements of this rule (326 IAC 1-6) shall apply to the owner or operator of any facility which has the potential to emit twenty-five (25) pounds per hour of particulates, one hundred (100) pounds per hour of volatile organic compounds or SO₂, or two thousand (2,000) pounds per hour of any other pollutant; or to the owner or operator of any facility with emission control equipment which suffers a malfunction that causes emissions in excess of the applicable limitation.

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. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)

*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:

—

—

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Batesville Manufacturing, Inc. (Options Plant)
1000 East Pearl Street
Batesville, Indiana 47006

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of _____ for _____.
(Title) (Company Name)
3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)
4. I hereby certify that Batesville Manufacturing, Inc. (Options Plant), 705 East Pearl Street, Batesville, Indiana, 47006, has constructed the metal and wood surface coating lines and a baghouse for an existing wood working facility in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on December 8, 1998 and as permitted pursuant to **Construction Permit No. CP-137-10452, Plant ID No. 137-00016** issued on _____
5. I hereby certify that Batesville Manufacturing, Inc. is now subject to the Title V program and will submit a Title V operating permit application within twelve (12) months from the postmarked submission date of this Affidavit of Construction.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature

Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of
Indiana on this _____ day of _____, 19 _____.

My Commission expires: _____

Signature

Name (typed or printed)

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for New Construction and Operation and Enhanced New Source Review (ENSR)

Source Background and Description

Source Name: Batesville Manufacturing, Inc. (Options Plant)
Source Location: 705 East Pearl Street, Batesville, Indiana 47006
County: Ripley
Construction Permit No.: CP-137-10452-00016
SIC Code: 3995
Permit Reviewer: Yvette de los Angeles/EVP

The Office of Air Management (OAM) has reviewed an application from Batesville Manufacturing, Inc. (Options Plant) relating to the construction and operation of burial caskets and urns manufacturing plant, consisting of the following equipment:

- (a) One (1) metal urn surface coating line capable of coating 36 urns per hour, consisting of two (2) spray booths, identified as P-M-1 and P-M-2, each utilizing a high volume low pressure (HVLP) spray equipment and dry filters for particulate matter control, and exhausting through one (1) stack ID S-M-1;
- (b) One (1) wood urn surface coating line capable of coating 32 urns per hour, consisting of two (2) spray booths, identified as P-W-1 and P-W-2, each utilizing a high volume low pressure (HVLP) spray equipment and dry filters for particulate matter control, and exhausting through one (1) stack ID S-W-1; and
- (c) One (1) baghouse, identified as BW-1, used to control the existing wood working facilities (WW-1) with a maximum flow rate of 21,000 cfm.

Source Definition

This burial caskets and urns manufacturing company consists of three (3) plants:

- (a) Plant #1 (Assembly Plant) is located at 1000 East Pearl Street, Batesville, Indiana 47006.
- (b) Plant #2 (Options Plant) is located at 705 East Pearl Street, Batesville, Indiana 47006.
- (c) Plant #3 (Stamping Plant) is located at 100 Eastern Avenue, Batesville, Indiana 47006.

Plants #2 and #3 are located adjacent to each other and Plant #1 is located nearby (within 0.5 miles distance). The three (3) plants are owned and operated by one (1) company, have the same SIC codes, and less than 50% of the products in Plant #2 are shipped to Plant #1. Therefore, the three (3) plants are considered as one (1) source.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (inch)	Flow Rate (acfm)	Temperature (°F)
S-M-1	metal urn paint booths	30	25	6000	70
S-W-1	wood urn paint booth	30	25	6000	70

Recommendation

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

Information, unless otherwise stated, 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 December 8, 1998, with additional information received on January 29, 1999 and March 4, 1999.

Emissions Calculations

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (three (3) pages).

Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	---	55.86
Particulate Matter (PM10)	---	55.86
Sulfur Dioxide (SO ₂)	---	0.00
Volatile Organic Compounds (VOC)	39.00	399.48
Carbon Monoxide (CO)	---	0.00
Nitrogen Oxides (NO _x)	---	0.00
Single Hazardous Air Pollutant (HAP)	9.90	73.66
Combination of HAPs	24.00	153.72

- (a) Allowable emissions are determined from the applicability of rule 326 IAC 2-2 and 326 IAC 2-4.1-1.
- (b) The allowable emissions based on the rules cited are less than the potential emissions, therefore, the allowable emissions are used for the permitting determination.
- (c) Potential emissions (as defined in the Indiana Rule) of VOC are greater than 25 tons per

year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

- (d) Potential emissions (as defined in the Indiana Rule) of a single hazardous air pollutant (HAP) are greater than 10 tons per year and the potential emissions of any combination of the HAPs are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, a construction permit is required.

County Attainment Status

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Ripley County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Ripley County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	19.2
PM10	19.2
SO ₂	0.0
VOC	1,683.2
CO	0.0
NO _x	0.0
Single HAP	332.5
Total HAP	893.8

- (a) This existing source is a major stationary source because at least one attainment regulated pollutant is emitted at a rate of 250 tons per year.
- (b) These emissions were based on the Part 70 application submitted by the company.

Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO ₂ (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO _x (ton/yr)
Proposed Modification	0.00	0.00	0.00	< 40	0.00	0.00
Contemporaneous Increases	NA	NA	NA	NA	NA	NA
Contemporaneous Decreases	NA	NA	NA	NA	NA	NA
Net Emissions	0.00	0.00	0.00	< 40	0.00	0.00
PSD or Offset Significant Level	25	15	40	40	100	40

(a) This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 (T-137-7280-00016) application on November 25, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Federal Rule Applicability

There are no New Source Performance Standards (326 IAC 12) (40 CFR Part 60) applicable to this facility.

40 CFR Part 63, Subpart JJ, National Emission Standards for Wood Furniture Manufacturing Operations

The wood surface coating line is not covered by 40 CFR Part 63, Subpart JJ (National Emission Standards for Wood Furniture Manufacturing Operations), because this facility is not considered a wood furniture manufacturing operation.

State Rule Applicability

326 IAC 2-2 (Prevention of Significant Deterioration)

The existing source is a major PSD source. Therefore, any modification to this source which has the potential to emit of any of the criteria pollutants greater than the major modification thresholds, would be subject to the requirements of 326 IAC 2-2. To avoid these requirements, the potential to emit from the modification to this source must be limited below the major modification thresholds. The VOC emissions from the metal and wood surface coating lines will be limited to less than 40 tons per twelve (12) month period, rolled on a monthly basis. Therefore, the metal and wood surface coating lines are not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

326 IAC 2-4.1-1 (New Source Toxics Control)

326 IAC 2-4.1-1 applies to new or reconstructed facilities with potential emissions of any single HAP equal or greater than ten (10) tons per twelve (12) month period and potential emissions of combination of HAPs greater than or equal to twenty-five (25) tons per twelve (12) month period.
 a Since this modification will limit any single HAP less than 10 tons per twelve (12) month period and will limit a combination of HAPs to less than 25 tons per twelve (12) month period, rolled on

a monthly basis, the requirements of 326 IAC 2-4.1-1 do not apply.

326 IAC 2-6 (Emission Reporting)

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 100 tons/yr of VOC. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by July 1 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

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 Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period, as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations), the particulate matter (PM) from the metal and wood surface coating lines shall be limited by the following:

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

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

The dry filters shall be in operation at all times the metal and wood surface coating lines are in operation, in order to comply with this limit.

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

Facilities existing as of January 1, 1980 having potential VOC emissions of 25 tons per year or more, and that are not subject to any other 8 rules, shall reduce VOC emissions using Best Available Control Technology (BACT). The metal urn surface coating line will limit VOC emissions to less than 25 tons per twelve (12) month period, rolled on a monthly basis. Therefore, the metal urn surface coating line is not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements).

326 IAC 8-2-9 (Miscellaneous Metal Coating Operation)

The metal urn surface coating line is not subject to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operation). The application of coatings to burial caskets is not applicable to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operation). Metal urns are defined as burial caskets.

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

The wood urn surface coating line is subject to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating). The surface coatings applied to wood furniture and/or wood components shall utilize one or more of the following application methods:

Airless Spray Application	Air-Assisted Airless Spray Application
Electrostatic Spray Application	Electrostatic Bell or Disc Application
Heated Airless Spray Application	Roller Coating
Brush or Wipe Application	Dip-and-Drain Application
High Volume Low Pressure HVLP	Aerosol Spray Cans

High volume low pressure spray is an acceptable alternative application of air-assisted airless spray. High volume low pressure (HVLP) spray means technology used to apply coating to a substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

The wood urn surface coating line will utilize a High Volume Low Pressure (HVLP) Spray Application system in order to comply with the requirements of 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) The metal and wood surface coating lines will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.
- (b) See attached spreadsheets for detailed air toxic calculations.

Conclusion

The construction of this burial caskets and urns manufacturing plant will be subject to the conditions of the attached proposed **Construction Permit No. CP-137-10452-00016**.

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for New Construction and Operation and Enhanced New Source Review (ENSR)

Source Name: Batesville Manufacturing, Inc. (Options Plant)
Source Location: 705 East Pearl Street, Batesville, Indiana 47006
County: Ripley
Construction Permit No.: CP-137-10452-00016
SIC Code: 3995
Permit Reviewer: Yvette de los Angeles/EVP

On March 20, 1999, the Office of Air Management (OAM) had a notice published in the Herald Tribune, Batesville, Indiana, stating that Batesville Manufacturing, Inc. (Options Plant) had applied for a construction permit to construct and operate metal and wood surface coating lines with dry filters as air pollution control and a baghouse as air pollution control for the existing wood working facility. The notice also stated that OAM proposed to issue a permit for this installation 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.

On April 13, 1999, Batesville Manufacturing, Inc. (Options Plant) submitted comments on the proposed construction permit. The summary of the comments and corresponding responses are as follows (changes in bold or strikeout for emphasis):

Comment 1

Operation Condition 8 (Page 4 of 14): IDEM should delete Operation Condition 8. The Permittee is not a "Major PSD Source" under 326 IAC 2-2-1(p) because it does not have emissions greater than the applicable thresholds and it is not contiguous or adjacent to a Major PSD Source, nor is it a support facility for a Major PSD Source. Therefore, Operation Condition 8 is not necessary to prevent application of the Prevention of Significant Deterioration (PSD) rules and should be deleted.

Response 1

As indicated in the Technical Support Document, under Source Definition (Page 1 of 6), the Options Plant and the Stamping Plant are located adjacent to each other and the Assembly Plant is located within 0.5 miles of the Stamping Plant. The three (3) plants are owned and operated by one (1) company, have the same SIC code, and close to 50% of the products from the Stamping Plant are shipped to the Assembly Plant. The Assembly Plant is a Major PSD source. Based on the OAM's policy, which was in agreement with the U.S. EPA's policy, plants that: (a) are under same ownership, (b) have same main SIC code, and (c) exchange products should be considered whether they qualify as one (1) source. OAM has determined that since the plants are approximately 0.5 miles apart and nearly 50% of the material goes from the Stamping Plant to the Assembly Plant, the Options Plant is also considered as a Major PSD Source. Therefore, there will be no change to the final permit due to this comment.

Comment 2

Operation Condition 11 (Page 5-6 of 14): IDEM should delete Operation Condition 11. Operation Condition 11 imposes certain monitoring requirements on Batesville Manufacturing's baghouse. The baghouse is internally vented and is a non-emissions unit for which compliance monitoring terms are inappropriate.

Response 2

OAM has decided that Operation Condition 11 for the woodworking baghouse is not required. Therefore, Operation Condition 11 has been removed and all subsequent conditions have been renumbered accordingly.

Baghouse Operating Condition

~~11. That the baghouse shall be operated at all times when the woodworking operation is in operation.~~

- ~~(a) The Permittee shall take readings of the total static pressure drop across the baghouses, at least once per week. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 3.0 and 6.0 inches of water. The Preventive Maintenance Plan for these baghouses shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of this range for any one reading.~~
- ~~(b) The instrument used for determining the pressure shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.~~
- ~~(c) The gauge employed to take the pressure drop across the baghouses or any part of the facility shall have a scale such that the expected normal reading shall be no less than 20 percent of full scale and be accurate within $\pm 2\%$ of full scale reading. The instrument shall be quality assured and maintained as specified by the vendor.~~
- ~~(d) An inspection shall be performed each calendar quarter of the all the baghouses. Defective bags shall be replaced. A record shall be kept of the results of the inspection and the number of bags replaced.~~
- ~~(e) In the event that a bag's failure has been observed:
 - ~~(i) The affected compartments will be shut down immediately until the failed units have been replaced.~~
 - ~~(ii) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.~~~~

Comment 3

Operation Condition 12 (Page 6 of 14): IDEM should delete Operation Condition 12. Operation Condition 12 requires Batesville Manufacturing to record visible emissions from surface coating lines. The requirements for visible emission notations in Operation Condition 12 are not required by regulation, are beyond IDEM's authority to impose, and are not beneficial in this case because of the minimal particulate emissions from these lines. Further, the requirement that the Prevention Maintenance Plan contain troubleshooting contingency and corrective actions is beyond the authority of IDEM to impose under 326 IAC 1-6-3.

Response 3

Visible emissions notations are used to indicate compliance with Operation Condition 10 (Opacity Limitations) without the requirement to have a person on site trained in opacity measurement. This requirement is designed as a trigger that the source perform some corrective action on the facility if visible emissions are abnormal, to ensure continuous compliance with opacity limitations. The observations are also used to assure compliance with particulate matter limitations and 326 IAC 6-3

and to ensure that the filters used are operating properly. Therefore, there will be no change to the final permit due to this comment.

Comment 4

Operation Condition 13 (Page 6 of 14): IDEM should modify Operation Condition 13 to omit requirements not necessary to comply with the applicable emissions limitations. Operation Condition 13 should be modified as follows:

13. That pursuant to 326 IAC 6-3 (Process Operations):

~~(a) The dry filters for particulate matter overspray control shall be in operation at all times when the metal and wood surface coating lines are in operation.~~

~~(b)~~(a) The metal and wood surface coating lines shall comply with 326 IAC 6-3-2(c) using the following equation:

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

~~(c) Daily inspections shall be performed to verify the placement, integrity and particulate loading of the filters.~~

~~(d) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.~~

Response 4

Complying with the requirements of 326 IAC 6-3 can be especially variable for paint booths. The actual substrate being painted and the solids content of the paint being used can affect the process weight rate, the gallons or pounds of solids used, transfer efficiency, or other factors that directly affect actual, allowable, or potential emissions. While permit applications contain representative information regarding these factors, relying on this information as an ongoing demonstration of compliance is difficult if the factors are not themselves enforceable. The OAM does not believe that it would be generally advisable to include these factors as permit conditions, to make them enforceable or to presume that they are so fixed they define a source's potential emissions because either could severely limit a source's operational flexibility. Properly operating the air pollution controls that are already in place is generally adequate to demonstrate compliance with 326 IAC 6-3 in lieu of a stack test and also assures compliance with applicable rules limiting fugitive dust, opacity, and (when necessary) Potential to Emit. The OAM believes that checking the placement and integrity of the filters once a day is a very effective means of ensuring proper operation and ongoing compliance. Therefore, there will be no change to the final permit due to this comment.

Comment 5

Quarterly Report Forms (Page 9, 10, 11 and 12 of 14): IDEM should delete the monthly limit for the first 11 months of the permit contained in the reports because such limits are not contained in the permit and are not consistent with the applicable annual emission limitations.

Response 5

The monthly limits for the first 11 months of the permit in the Quarterly Report Forms (formerly Pages 9, 10, 11 and 12 of 14, now Pages 8, 9, 10, and 11 of 13) are necessary to verify compliance with Operation Conditions 8 (PSD Minor Source Limit), 13 (MACT Synthetic Minor Limitation), and 14 (BACT Synthetic Minor Limitation). Therefore, there will be no change to the final permit due to this comment.

Upon further review, the OAM has decided to make the following changes to the Construction Permit (changes in bold or strikeout for emphasis):

Comment 1

Operation Condition 17(d) (Page 8 of 14): The word exceedance is spelled wrong.

Response 1

Operation Condition 17 (d), now Condition 16 (d), has been modified as follows:

Reporting Requirements

- (d) Any corrective actions taken as a result of an ~~exceedance~~ **exceedance** of a limit, an excursion from the parametric values, or a malfunction that may have caused excess emissions must be clearly identified in such reports.

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

Company Name: **Batesville Manufacturing, Inc. (Options Plant)**
 Address City IN Zip: **705 East Pearl Street, Batesville, IN 47006**
 CP: **137-10452**
 Plt ID: **137-00016**
 Reviewer: **Yvette de los Angeles/EVP**
 Date: **04/29/99**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC tons per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
METAL COATING LINE																
* Primer	9.6	49.22%	0.0%	49.2%	0.0%	31.64%	0.03000	36.000	4.70	4.70	5.08	121.84	22.24	5.74	14.86	75%
* Clear Topcoat	8.4	47.01%	0.0%	47.0%	0.0%	45.65%	0.14000	36.000	3.94	3.94	19.88	477.08	87.07	24.54	8.64	75%
Basecoats:																
Midnight Blue	7.8	54.63%	0.0%	54.6%	0.0%	37.83%	0.07000	36.000	4.24	4.24	10.70	256.72	46.85	9.73	11.22	75%
Burgundy	7.8	54.21%	0.0%	54.2%	0.0%	37.51%	0.03000	36.000	4.23	4.23	4.57	109.60	20.00	4.22	11.27	75%
Ivory Pearl	8.3	56.30%	0.0%	56.3%	0.0%	34.10%	0.06000	36.000	4.67	4.67	10.09	242.24	44.21	8.58	13.70	75%
Carnation	10.6	38.62%	0.0%	38.6%	0.0%	39.39%	0.04000	36.000	4.10	4.10	5.91	141.75	25.87	10.28	10.41	75%
Tuscalac	7.9	54.05%	0.0%	54.1%	0.0%	36.59%	0.03000	36.000	4.29	4.29	4.63	111.10	20.28	4.31	11.71	75%
Alameda Rose	7.9	52.43%	0.0%	52.4%	0.0%	38.56%	0.05000	36.000	4.14	4.14	7.45	178.71	32.61	7.40	10.73	75%
* Emerald Green	7.7	69.60%	0.0%	69.6%	0.0%	24.76%	0.06000	36.000	5.33	5.33	11.52	276.38	50.44	5.51	21.53	75%
Ruby Red Metallic	7.7	69.60%	0.0%	69.6%	0.0%	24.76%	0.06000	36.000	5.33	5.33	11.52	276.38	50.44	5.51	21.53	75%
Azure Blue Pearl	7.7	69.60%	0.0%	69.6%	0.0%	24.76%	0.06000	36.000	5.33	5.33	11.52	276.38	50.44	5.51	21.53	75%
Pastel Blue	7.7	69.60%	0.0%	69.6%	0.0%	24.76%	0.03000	36.000	5.33	5.33	5.76	138.19	25.22	2.75	21.53	75%
Mary Kay Pink	7.7	69.60%	0.0%	69.6%	0.0%	24.76%	0.03000	36.000	5.33	5.33	5.76	138.19	25.22	2.75	21.53	75%
WOOD COATING LINE																
Sanding Sealer	7.6	72.73%	0.0%	72.7%	0.0%	19.04%	0.05000	32.000	5.51	5.51	8.82	211.70	38.63	3.62	28.95	75%
* Tinted Whitewash Stains:	7.9	76.42%	0.0%	76.4%	0.0%	16.32%	0.05000	32.000	6.00	6.00	9.60	230.36	42.04	3.24	36.76	75%
* Autumn Oak Spray	7.0	95.05%	0.0%	95.1%	0.0%	2.49%	0.05000	32.000	6.63	6.63	10.62	254.76	46.49	0.61	266.45	75%
Red Cherry LWS	7.0	85.26%	0.0%	85.3%	0.0%	7.19%	0.05000	32.000	5.95	5.95	9.52	228.52	41.71	1.80	82.77	75%
Lt. Brown Poplar Spray	7.4	95.13%	0.0%	95.1%	0.0%	2.89%	0.01000	32.000	7.08	7.08	2.26	54.36	9.92	0.13	244.90	75%
Walnut Blend Wipe	7.2	90.77%	0.0%	90.8%	0.0%	6.05%	0.01000	32.000	6.55	6.55	2.10	50.33	9.19	0.23	108.32	75%
Golden Pecan Spray	7.3	97.01%	0.0%	97.0%	0.0%	7.10%	0.01000	32.000	7.10	7.10	2.27	54.54	9.95	0.08	100.02	75%
Driftwood Spray	7.2	97.87%	0.0%	97.9%	0.0%	6.88%	0.01000	32.000	7.03	7.03	2.25	53.97	9.85	0.05	798.53	75%
Memorial Oak LWS	7.3	90.49%	0.0%	90.5%	0.0%	6.10%	0.01000	32.000	6.59	6.59	2.11	50.59	9.23	0.24	107.99	75%
Lt. Brown Mahog. Filler	10.2	42.51%	0.0%	42.5%	0.0%	33.37%	0.01000	32.000	4.34	4.34	1.39	33.37	6.09	2.06	13.02	75%
Batesville Blend Shade	7.1	91.47%	0.0%	91.5%	0.0%	6.01%	0.01000	32.000	6.52	6.52	2.09	50.09	9.14	0.21	108.52	75%
Clear Topcoats:																
04 Gloss Lacquer	7.8	74.07%	0.0%	74.1%	0.0%	18.56%	0.05000	32.000	5.78	5.78	9.24	221.85	40.49	3.54	31.13	75%
15 Gloss Lacquer	8.0	68.09%	0.0%	68.1%	0.0%	68.09%	0.05000	32.000	5.43	5.43	8.69	208.65	38.08	4.46	7.98	75%
30 Gloss Lacquer	8.0	68.09%	0.0%	68.1%	0.0%	14.59%	0.05000	32.000	5.43	5.43	8.69	208.65	38.08	4.46	37.24	75%
* 80 Gloss Lacquer	7.7	69.96%	0.0%	70.0%	0.0%	23.62%	0.20000	32.000	5.39	5.39	34.52	828.51	151.20	16.23	22.84	75%
Tinted Whitewash Lac	7.8	77.76%	0.0%	77.8%	0.0%	15.20%	0.05000	32.000	6.07	6.07	9.70	232.91	42.51	3.04	39.90	75%
State Potential Emissions	Add worst case coating to all solvents (Metal Coating Line)										36.47	875.30	159.74	35.78		
State Potential Emissions	Add worst case coating to all solvents (Wood Coating Line)										54.73	1313.63	239.74	20.08		
State Potential Emissions	Add worst case coating to all solvents (Metal + Wood Coating Lines)										91.21	2188.93	399.48	55.86		
Federal Potential Emissions (controlled):																
		** Material Usage Limitation		Control Efficiency: VOC		PM	Limited VOC lbs per Hour	Limited VOC lbs per Day	Limited VOC tons per Year	Controlled PM tons/yr						
Total Federal Potential Emissions (Metal Coating Line):		0.00%	99.00%	3.56	85.43	15.59	0.36									
Total Federal Potential Emissions (Wood Coating Line):		0.00%	99.00%	5.34	128.21	23.40	0.20									
Total Federal Potential Emissions (Metal + Wood Coating Lines):		9.76%	0.00%	8.90	213.64	38.99	0.56									

* The source has one spray booth in which only one primer, one topcoat and one basecoat/stain are used each day.

** In order to avoid requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), VOC emissions from the metal and wood coating lines must be less than 40 tons per year.

The VOC usage is limited to 9.76% of the potential uncontrolled emissions (39/399.48 = 9.76%).

Total Worst Case State Potential Emissions (Metal Coating Line) = 1 Primer + 1 Clear Topcoat + 1 Basecoat (Emerald Green)

Total Worst Case State Potential Emissions (Wood Coating Line) = 1 Sealer (Tinted Whitewash Sealer) + 1 Clear Topcoat (80 Gloss Lacquer) + 1 Stain (Autumn Oak)

METHODOLOGY

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

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

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

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

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

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

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

Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: **Batesville Manufacturing, Inc. (Options Plant)**
Address City IN Zip: **705 East Pearl Street, Batesville, IN 47006**
CP: **137-10452**
Plt ID: **137-00016**
Reviewer: **Yvette de los Angeles/EVP**
Date: **04/29/99**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hr)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Ethyl Benzene	Weight % MIBK	Weight % MEK	Weight % 2-Butoxyetha	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehy de Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	MIBK Emission s (ton/yr)	MEK Emissions (ton/yr)	2-Butoxyeth and Emissions (ton/yr)	TOTAL HAP EMISSIONS (ton/yr)	
METAL COATING LINE																			
* Primer	9.6	0.03000	36.000	2.50%	15.00%	0.00%	0.00%	7.50%	7.50%	0.00%	1.13	6.78	0.00	0.00	3.39	3.39	0.00	14.68	
* Clear Topcoat	8.4	0.14000	36.000	21.00%	0.00%	0.23%	4.00%	1.00%	0.00%	0.00%	38.89	0.00	0.42	7.41	1.85	0.00	0.00	48.57	
Basecoats:																			
Midnight Blue	7.8	0.07000	36.000	7.50%	15.00%	0.50%	2.50%	0.00%	2.50%	0.00%	6.43	12.86	0.43	2.14	0.00	2.14	0.00	24.01	
Burgundy	7.8	0.03000	36.000	7.50%	15.00%	0.50%	2.50%	0.00%	2.50%	0.00%	2.77	5.54	0.18	0.92	0.00	0.92	0.00	10.34	
* Ivory Pearl	8.3	0.06000	36.000	40.00%	0.00%	0.11%	8.00%	0.00%	0.00%	0.00%	31.37	0.00	0.09	6.27	0.00	0.00	0.00	37.73	
Carnation	10.6	0.04000	36.000	2.50%	15.00%	0.00%	0.50%	0.00%	0.00%	0.00%	0.00	10.05	0.00	0.33	0.00	0.00	0.00	10.38	
Tuscalac	7.9	0.03000	36.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Alameda Rose	7.9	0.05000	36.000	7.50%	15.00%	0.50%	2.50%	0.00%	2.50%	0.00%	4.67	9.33	0.31	1.56	0.00	1.56	0.00	17.42	
Emerald Green	7.7	0.06000	36.000	5.00%	25.00%	0.00%	0.00%	0.00%	4.00%	0.00%	3.62	18.12	0.00	0.00	0.00	2.90	0.00	24.64	
Ruby Red Metallic	7.7	0.06000	36.000	5.00%	25.00%	0.00%	0.00%	0.00%	4.00%	0.00%	3.62	18.12	0.00	0.00	0.00	2.90	0.00	24.64	
Azure Blue Pearl	7.7	0.06000	36.000	5.00%	25.00%	0.00%	0.00%	0.00%	4.00%	0.00%	3.62	18.12	0.00	0.00	0.00	2.90	0.00	24.64	
Pastel Blue	7.7	0.03000	36.000	5.00%	25.00%	0.00%	0.00%	0.00%	4.00%	0.00%	1.81	9.06	0.00	0.00	0.00	1.45	0.00	12.32	
Mary Kay Pink	7.7	0.03000	36.000	5.00%	25.00%	0.00%	0.00%	0.00%	4.00%	0.00%	1.81	9.06	0.00	0.00	0.00	1.45	0.00	12.32	
WOOD COATING LINE																			
Sanding Sealer	7.6	0.05000	32.000	7.50%	7.50%	0.00%	2.50%	0.00%	7.50%	0.00%	3.98	3.98	0.00	1.33	0.00	3.98	0.00	13.28	
* Tinted Whitewash S	7.9	0.05000	32.000	2.50%	37.50%	0.00%	0.00%	0.00%	0.00%	0.00%	1.38	20.63	0.00	0.00	0.00	0.00	0.00	22.01	
Stains:																			
* Autumn Oak Spray	7.0	0.05000	32.000	47.50%	7.50%	0.00%	12.50%	0.00%	0.00%	0.00%	23.24	3.67	0.00	6.11	0.00	0.00	0.00	33.02	
Red Cherry LWS	7.0	0.05000	32.000	0.00%	7.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	3.67	0.00	0.00	0.00	0.00	0.00	3.67	
Lt. Brown Poplar Spray	7.4	0.01000	32.000	17.50%	67.50%	0.00%	2.50%	0.00%	0.00%	0.00%	1.82	7.04	0.00	0.26	0.00	0.00	0.00	9.12	
Walnut Blend Wipe	7.2	0.01000	32.000	22.50%	2.50%	0.00%	7.50%	0.00%	0.00%	2.50%	2.28	0.25	0.00	0.76	0.00	0.00	0.25	3.54	
Golden Pecan Spray St	7.3	0.01000	32.000	0.00%	97.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	10.00	0.00	0.00	0.00	0.00	0.00	10.00	
Driftwood Spray	7.2	0.01000	32.000	0.00%	97.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	9.81	0.00	0.00	0.00	0.00	0.00	9.81	
Memorial Oak LWS	7.3	0.01000	32.000	22.50%	2.50%	0.00%	7.50%	0.00%	0.00%	2.50%	2.30	0.26	0.00	0.77	0.00	0.00	0.26	3.57	
Lt. Brown Mahog. Filler	10.2	0.01000	32.000	0.00%	2.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.36	
Batesville Blend Shade	7.1	0.01000	32.000	0.00%	32.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	3.25	0.00	0.00	0.00	0.00	0.00	3.25	
Clear Topcoats:																			
04 Gloss Lacquer	7.8	0.05000	32.000	12.50%	12.50%	0.00%	2.50%	0.00%	0.00%	2.50%	6.83	6.83	0.00	1.37	0.00	0.00	1.37	16.40	
15 Gloss Lacquer	8.0	0.05000	32.000	12.50%	22.50%	0.00%	2.50%	0.00%	0.00%	2.50%	6.99	12.58	0.00	1.40	0.00	0.00	1.40	22.37	
30 Gloss Lacquer	8.0	0.05000	32.000	17.50%	2.50%	0.00%	2.50%	0.00%	0.00%	2.50%	9.79	1.40	0.00	1.40	0.00	0.00	1.40	13.98	
* 80 Gloss Lacquer	7.7	0.20000	32.000	2.50%	0.00%	0.00%	2.50%	0.00%	0.00%	0.00%	5.40	0.00	0.00	5.40	0.00	0.00	0.00	10.81	
Tinted Whitewash Lacq	7.8	0.05000	32.000	12.50%	22.50%	0.00%	2.50%	0.00%	0.00%	2.50%	6.83	12.30	0.00	1.37	0.00	0.00	1.37	21.86	
State Potential Emissions	Add worst case coating to all solvents (Metal Coating Line)										71.40	6.78	0.51	13.68	5.24	3.39	0.00	100.99	
State Potential Emissions	Add worst case coating to all solvents (Wood Coating Line)										30.01	24.30	0.00	11.52	0.00	0.00	0.00	0.00	65.83
State Potential Emissions	Add worst case coating to all solvents (Metal + Wood Coating Lines)										101.41	31.07	0.51	25.20	5.24	3.39	0.00	166.82	
Federal Potential Emissions (controlled):																			
											** Material Usage Limitation	Limited Xylene Emissions (tons/yr)	Limited Toluene Emissions (tons/yr)	Limited Formaldehyd Emissions (tons/yr)	Limited Ethyl Benze Emissions (tons/yr)	Limited MIBK Emissions (tons/yr)	Limited MEK Emissions (tons/yr)	Limited 2-Butoxyetha Emissions (tons/yr)	LIMITED TOTAL HAP EMISSIONS (ton/yr)
Total Federal Potential Emissions (Metal Coating Line):												6.97	0.66	0.05	1.34	0.51	0.33	0.00	9.86
Total Federal Potential Emissions (Wood Coating Line):												2.93	2.37	0.00	1.12	0.00	0.00	0.00	6.43
Total Federal Potential Emissions (Metal + Wood Coating Lines):											9.76%	9.90	3.03	0.05	2.46	0.51	0.33	0.00	16.29

* The source has one spray booth in which only one primer, one topcoat and one basecoat/stain are used each day.

** In order to avoid requirements of 326 IAC 2-2 (Prevention of Significant Deterioration), VOC emissions from the metal and wood coating lines must be less than 40 tons per year. The VOC usage is limited to 9.76% of the potential uncontrolled emissions (39/399.48 = 9.76%).

Total Worst Case State Potential Emissions (Metal Coating Line) = 1 Primer + 1 Clear Topcoat + 1 Basecoat (Ivory Pearl)

Total Worst Case State Potential Emissions (Wood Coating Line) = 1 Sealer (Tinted Whitewash Sealer) + 1 Clear Topcoat (80 Gloss Lacquer) + 1 Stain (Autumn Oak)

Methodology

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