

May 21, 2003

**Re: Monaco Coach Corporation 039-17375-00087**

TO: Interested Parties / Applicant

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 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, 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 4-21.5-3-7 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, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen 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 consideration 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.

Enclosure



*Frank O'Bannon*  
Governor

*Lori F. Kaplan*  
Commissioner

100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
www.state.in.us/idem

May 21, 2003

Mr. Kurt W. Anderson  
Director of EH&S  
Monaco Coach Corporation  
P.O. Box 465  
Wakarusa, Indiana 46573

Re: 039-17375-00087  
1st Minor Source Modification to:  
Part 70 permit No.: T039-6116-00087

Dear Mr. Anderson:

Monaco Coach Corporation was issued a Part 70 operating permit T039-6116-00087 on June 26 2002 for a stationary recreation vehicle manufacturing plant that operates woodworking, surface coating, and fiberglass processes. An application to modify the source was received on March 18, 2003. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

One (1) paint booth (identified as SB42-3), located in Plant 42, used for coating wood cabinets using HVLP spray guns and having a maximum throughput capacity of 120 units per hour. Emissions of particulate matter are controlled using dry filters, which exhaust at stack SV42-3. This unit was constructed in 2003.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions  
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval 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.
3. Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval 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. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

The source may begin construction and operation when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 operating permit as a minor permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Amanda Baynham, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7910 to speak directly to Ms. Baynham. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original Signed by Paul Dubenetzky  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments

Minor Source Modification Permit  
Technical Support Document (TSD)

ERG/AAB

cc: File - Elkhart County  
Elkhart County Health Department  
Norther Regional Office  
Air Compliance Section Inspector - Paul Karkiewicz  
Compliance Data Section - Karen Nowak  
Administrative and Development -Sara Cloe  
Technical Support and Modeling - Michele Boner



*Frank O'Bannon*  
Governor

*Lori F. Kaplan*  
Commissioner

100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.state.in.us/idem](http://www.state.in.us/idem)

## MINOR SOURCE MODIFICATION PERMIT OFFICE OF AIR QUALITY

**Monaco Coach Corporation  
1205 East Lincoln Street  
Nappanee, Indiana 46550**

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Second Minor Source Modification No.: T039-17437-00087	Pages Affected: 2, 3, 5-11
Issued by: Original Signed by Paul Dubenetzky  Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 21, 2003

## 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 through A.3 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 2-7-4(c)] [326 IAC 2-7-5(15)]

---

The Permittee owns and operates a stationary recreational vehicle manufacturing plant, that operates woodworking, surface coating, and fiberglass processes.

Responsible Official: Vice President  
Source Address: 1205 East Lincoln Street, Nappanee, Indiana, 46550  
Mailing Address: P.O. Box 465, Wakarusa, Indiana, 46573  
SIC Codes: 2434, 2431, 2511, 3083, 3716, 3792  
County Location: Elkhart  
County Status: Attainment for all criteria pollutants  
Source Status: Part 70 Permit Program  
Minor Source, under PSD Rules;  
Major Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

---

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

(a) Surface Coating:

- (1) Five (5) paint booths, located in Plant 48, identified as B48-1 through B48-5, constructed in 1984, equipped with HVLP spray guns for wood furniture and cabinet coating, with a maximum capacity at each spray booth of five (5) gallons per hour of coating, using dry filters for overspray control, and exhausting at stacks SV48-01 for booth B48-1, SV48-02 for B48-2, SV48-03 for B48-3, SV48-04 for B48-4, and SV48-05 for B48-5. The HVLP spray guns may be used in the lamination and fiberglass booths (located in Plant 42) for wood furniture and cabinet coating.
- (2) One (1) wood finishing paint line, located in Plant 48, consisting of the following equipment:
  - (A) One (1) wood prep and clean-up area with a total maximum raw material throughput of 120 units per hour per booth; and
  - (B) Three (3) paint booths, identified as B48-6 through B48-8, constructed in 1999, equipped with HVLP guns for stain, topcoat and sealer applications, with a total maximum raw material throughput of 120 units per hour per booth, using dry filters for overspray control, and exhausting at stacks SV48-6, SV48-7 and SV48-8, respectively.
- (3) One (1) paint booth (identified as SB42-3), located in Plant 42, used in conjunction with SB42-1 and SB42-2 for coating wood cabinets using HVLP spray guns and having a maximum throughput capacity of 120 units per hour. Emissions of particulate matter are controlled using dry filters, which exhaust at stack SV42-3. This unit was constructed in 2003.

- (4) One (1) lamination spray adhesive booth, located in Plant 42, identified as lam42, using a HVLP spray gun, with a maximum capacity of 14 gallons per day of adhesive, using dry filters for overspray control, and exhausting at GV42. The lamination booth may be used for wood finishing operations using HVLP spray guns from paint booths B48-1 through B48-5.
- (b) Woodworking Operations controlled by:
- (1) One (1) baghouse for particulate control, located in Plant 48, identified as D48-01, with a maximum capacity of 10000 pounds per hour, and exhausting at stack D48-01.
  - (2) One (1) cyclone for particulate control, located in Plant 48, identified as D48-02, with a maximum capacity of 2000 pounds per hour, and exhausting at stack D48-02.
  - (3) One (1) cyclone for particulate control, located in Plant 42, identified as D42-01, with a maximum capacity of 2000 pounds per hour, and exhausting at stack D42-01.
  - (4) One (1) baghouse for particulate control, located in Plant 42, identified as D42-02, controlling emissions from woodworking equipment with a maximum throughput capacity of 3,000 pounds per hour, and exhausting at stack D42-02.
  - (5) One (1) baghouse for particulate control, located in Plant 48, identified as D48-05, controlling emissions from woodworking equipment with a maximum throughput capacity of 13,000 pounds per hour, and exhausting at stack D48-05.
  - (6) One (1) baghouse for particulate control, located in Plant 48, identified as D48-03, controlling emissions from woodworking equipment with a maximum throughput capacity of 5,000 pounds per hour, and exhausting at stack D48-03.
  - (7) One (1) baghouse for particulate control, located in Plant 48, identified as D48-04, controlling emissions from woodworking equipment with a maximum throughput capacity of 3,000 pounds per hour, and exhausting at stack D48-04.
- (c) Fiberglass Operations:
- (1) One (1) fiberglass motor home parts manufacturing line (identified as booths SB42-1 and SB42-2), consisting of one (1) fiberglass booth equipped with one (1) air assisted airless gel coat application system, one (1) air assisted airless resin application system and one (1) flow coat resin application system. The fiberglass booth may be used for wood finishing operations using HVLP spray guns. The fiberglass booths (SB42-1 and SB42-2) are equipped with dry filters for overspray which exhaust to stack GV42.
  - (2) One (1) fiberglass prep and clean-up area, exhausting to stack GV42.
  - (3) One (1) sander, with dry filters for PM control, exhausting to stack GV42.
  - (4) Two (2) routers, each with dry filters for PM control, and both exhausting to stack GV42.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) The following equipment, identified as W43 and T43, located in Plant 43, related to manufacturing activities not resulting in the emissions of HAPs; brazing equipment, cutting torches, soldering equipment, welding equipment.
- (b) Degreasing operations, located in Plant 43, identified as DG43, using mineral spirits as solvent, with a maximum throughput of 0.3 gallons per day, and exhausting at stack GV43.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (a) Surface Coating:
- (1) Five (5) paint booths, located in Plant 48, identified as B48-1 through B48-5, constructed in 1984, equipped with HVLP spray guns for wood furniture and cabinet coating, with a maximum capacity at each spray booth of five (5) gallons per hour of coating, using dry filters for overspray control, and exhausting at stacks SV48-01 for booth B48-1, SV48-02 for B48-2, SV48-03 for B48-3, SV48-04 for B48-4, and SV48-05 for B48-5. The HVLP spray guns may be used in the lamination and fiberglass booths (located in Plant 42) for wood furniture and cabinet coating.
  - (2) One (1) wood finishing paint line, located in Plant 48, consisting of the following equipment:
    - (A) One (1) wood prep and clean-up area with a total maximum raw material throughput of 120 units per hour per booth; and
    - (B) Three (3) paint booths, identified as B48-6 through B48-8, to be constructed in 1999, equipped with HVLP guns for stain, topcoat and sealer applications, with a total maximum raw material throughput of 120 units per hour per booth, using dry filters for overspray control, and exhausting at stacks SV48-6, SV48-7 and SV48-8, respectively.
  - (3) One (1) paint booth (identified as SB42-3), located in Plant 42, used in conjunction with SB42-1 and SB42-2 for coating wood cabinets using HVLP spray guns and having a maximum throughput capacity of 120 units per hour. Emissions of particulate matter are controlled using dry filters, which exhaust at stack SV42-3. This unit was constructed in 2003.
  - (4) One (1) lamination spray adhesive booth, located in Plant 42, identified as lam42, using a HVLP spray gun, with a maximum capacity of 14 gallons per day of adhesive, using dry filters for overspray control, and exhausting at GV42. The lamination booth may be used for wood finishing operations using HVLP spray guns from paint booths B48-1 through B48-5.

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

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

The entire source shall use less than 250 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per 12 consecutive month period. This usage limit is required to limit the potential to emit of VOC to less than 250 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

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

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), for B48-1 through B48-5, and SB42-3, pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8, and pursuant to Administrative Amendment 039-16234-00087 for lam42 and the fiberglass booths (SB42-1 and SB42-2) in Section D.3, the surface coatings applied to wood furniture and cabinets shall utilize one of the following application methods:

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

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

D.1.3 Particulate Matter (PM) [40 CFR 52, Subpart P]

Pursuant to 40 CFR 52, Subpart P and pursuant to PC (20) 1730, issued on February 21, 1989 for B48-1 through B48-5, and pursuant to the Exemption issued on March 4, 1987, and CP 039-10442-00087, issued April 21, 1999 for B48-6 through B48-8, and pursuant to Administrative Amendment 039-16234-00087 for lam42 and the fiberglass booth in Section D.3 and pursuant to MSM 039-17357-00087 for SB42-3, the PM from each of the surface coating operations, shall not exceed the pound per hour emission rate established as E in the following formula:

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:

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

D.1.4 General Provisions Relating to HAPs [326 IAC 20-1-1] [40 CFR 63, Subpart A]

For the surface coating operations, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8, the provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the surface coating facilities described in this section and to the fiberglass booth described in Section D.3, except when otherwise specified in 40 CFR 63, Subpart JJ.

D.1.5 Wood Furniture NESHAP [40 CFR 63, Subpart JJ]

For the surface coating operations performed in B48-1 through B48-5, SB42-3, lam42, and the fiberglass booth described in Section D.3, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8:

- (a) The wood furniture coating operations are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20-14, (40 CFR 63, Subpart JJ), with a compliance date of December 7, 1998, and the date operation commenced for B48-6 through B48-8.
- (b) Pursuant to 40 CFR 63, Subpart JJ, the wood furniture coating operations shall comply with the following conditions:
  - (1) Limit the Volatile Hazardous Air Pollutants (VHAP) emissions from finishing operations as follows:
    - (A) Achieve a weighted average volatile hazardous air pollutant (VHAP) content across all coatings of one (1.0) pound VHAP per pound solids as applied; or

- (B) Use compliant finishing materials in which all stains, washcoats, sealers, topcoats, basecoats and enamels have a maximum VHAP content of one (1.0) pound VHAP per pound solid, as applied. Thinners used for on-site formulation of washcoats, basecoats, and enamels have a three percent (3.0%) maximum VHAP content by weight. All other thinners have a ten percent (10.0%) maximum VHAP content by weight, as applied; or
  - (C) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids; or
  - (D) Use a combination of (A), (B), and (C).
- (2) Limit VHAP emissions contact adhesives as follows:
- (A) For foam adhesives used in products that meet the upholstered seating flammability requirements, the VHAP content shall not exceed 1.8 pound VHAP per pound solids, as applied.
  - (B) For all other contact adhesives (except aerosols and contact adhesives applied to nonporous substrates) the VHAP content shall not exceed one (1.0) pound VHAP per pound solids, as applied.
  - (C) Or, as an alternative method to (A) and (B) of this part, use a control device to limit emissions to one (1.0) pound VHAP per pound solids, as applied.
- (3) The strippable spray booth material shall have a maximum VOC content of eight-tenths (0.8) pounds VOC per pound solids, as applied.

#### D.1.6 Work Practice Standards [40 CFR 63.803]

For the surface coating operations, performed in B48-1 through B48-5, SB42-3, lam42, and the fiberglass booth described in Section D.3, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8, the owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan within sixty (60) calendar days after the compliance date. The work practice implementation plan must define environmentally desirable work practices for each wood furniture manufacturing operation and at a minimum addresses each of the following work practice standards as defined under 40 CFR 63.803:

- (a) Operator training course.
- (b) Leak inspection and maintenance plan.
- (c) Cleaning and washoff solvent accounting system.
- (d) Chemical composition of cleaning and washoff solvents.
- (e) Spray booth cleaning.
- (f) Storage requirements.
- (g) Conventional air spray guns shall only be used under the circumstances defined under 40 CFR 63.803(h).
- (h) Line cleaning.
- (i) Gun cleaning.
- (j) Washoff operations.
- (k) Formulation assessment plan for finishing operations.

#### D.1.7 Lamination Booth Operation

The Permittee may use the lamination booth for fiberglass operations or wood finishing operations. The Permittee shall not simultaneously perform fiberglass and woodfinishing

operations in the lamination booth. When used for wood finishing operations, the Permittee shall use HVLP spray guns from paint booths B48-1 through B48-5.

**D.1.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

For the surface coating operations B48-1 through B48-5, SB42-3, lam42, and the fiberglass booths described in Section D.3, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8, a Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

**Compliance Determination Requirements**

**D.1.9 Testing Requirements [ 326 IAC 2-1.1-11] [326 IAC 2-7-6(1),(6)] [40 CFR 63]**

For the surface coating operations performed in B48-1 through B48-5, SB42-3, lam42 and the fiberglass booth described in Section D.3, and pursuant to CP 039-10442-00087, issued April 24, 1999, for B48-6 through B48-8:

- (a) Pursuant to 40 CFR 63, Subpart JJ, if the Permittee elects to demonstrate compliance using 63.804(a)(3) or 63.804(c)(2) or 63.804(d)(3) or 63.804(e)(2), performance testing must be conducted in accordance with 40 CFR 63, Subpart JJ and 326 IAC 3-6.
- (b) IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the limits specified in Conditions D.1.1, D.1.3, and D.1.5 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**D.1.10 Volatile Organic Compounds (VOC)**

For the surface coating operations performed in B48-1 through B48-5, SB42-3, lam42, and the fiberglass booth described in Section D.3, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8, compliance with the VOC content and usage limitations contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

**D.1.11 VOC Emissions**

Compliance with Condition D.1.1 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.

**D.1.12 Particulate [326 IAC 6-3-2(d)]**

Pursuant to CP 039-10442-00087, issued April 21, 1999 and 326 IAC 6-3-2 (d), the dry filters for particulate matter overspray control shall be operated in accordance with manufacturer's specifications and control emissions from the surface coating facilities at all times when booths B48-6 through B48-8, are in operation.

**D.1.13 Monitoring**

- (a) For the surface coating operations, B48-6 through B48-8, and SB42-3, the Permittee shall implement an operator-training program.
  - (1) All operators that perform painting operations or booth maintenance, shall be trained in the proper set-up and operation of the particulate control system. All existing operators shall be trained within sixty (60) days of the date of permit issuance. All new operators shall be trained upon hiring or transfer.
  - (2) Training shall include proper filter alignment, filter inspection and maintenance, and troubleshooting practices.

- (3) All operators shall be given refresher training annually.
- (b) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

**D.1.14 Particulate [326 IAC 6-3-2(d)]**

---

The dry filters for particulate control shall be operated in accordance with manufacturer's specifications and control emissions from the surface coating facilities at all times when booths B48-1 through B48-5, SB42-3, lam42, and the fiberglass described in Section D.3, are in operation.

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.1.15 Record Keeping Requirements**

---

For the surface coating operations performed in B48-1 through B48-5, SB42-3, lam42, and the fiberglass booth described in Section D.3, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8:

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1.
  - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) The volume weighted VOC content of the coatings used for each month;
  - (3) The cleanup solvent usage for each month;
  - (4) The total VOC usage for each month; and
  - (5) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.1.5, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be complete and sufficient to establish compliance with the VHAP usage limits established in Condition D.1.5.
  - (1) Certified Product Data Sheet for each finishing material, thinner, contact adhesive and strippable booth coating.
  - (2) The HAP content in pounds of VHAP per pounds of solids, as applied, for all finishing materials and contact adhesives used.
  - (3) The VOC content in pounds of VOC per pounds of solids, as applied, for each strippable coating used.
  - (4) The VHAP content in weight percent of each thinner used.
  - (5) When the averaging compliance method is used, copies of the averaging calculations for each month as well as the data on the quantity of coating and thinners used to calculate the average.

- (c) To document compliance with Condition D.1.6, the Permittee shall maintain records demonstrating actions have been taken to fulfill the Work Practice Implementation Plan.
- (d) To document compliance with Conditions D.1.12 and D.1.14, the Permittee shall maintain records of any non-routine maintenance activities performed on particulate emission control devices which have air flows greater than four thousand (4,000) cfm.
- (e) To document compliance with Condition D.1.13, the training program shall be written and retained on site. A log of the training program, the list of trained operators and training records, and additional inspections prescribed by the Preventive Maintenance Plan shall be maintained on site or available within one (1) hour for inspection by IDEM.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.16 Reporting Requirements

For the surface coating operations performed in B48-1 through B48-5, SB42-3, lam42, and the fiberglass booth described in Section D.3, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8:

- (a) A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address(es) listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.
- (b) A semi-annual Continuous Compliance Report to document compliance with Condition D.1.5 and the Certification form, shall be submitted within thirty (30) days after the end of the six (6) months being reported.
- (c) Pursuant to the schedule required by 40 CFR 63.807(c)(2), subsequent reports shall be submitted 30 calendar days after the end of each 6-month period following the first report.
- (d) The reports required in (b) and (c) of this condition shall be submitted to:

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

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

**SECTION D.2**

**FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(15)]:**

(b) Woodworking Operations controlled by:

- (1) One (1) baghouse for particulate control, located in Plant 48, identified as D48-01, with a maximum capacity of 10000 pounds per hour, and exhausting at stack D48-01.
- (2) One (1) cyclone for particulate control, located in Plant 48, identified as D48-02, with a maximum capacity of 2000 pounds per hour, and exhausting at stack D48-02.
- (3) One (1) cyclone for particulate control, located in Plant 42, identified as D42-01, with a maximum capacity of 2000 pounds per hour, and exhausting at stack D42-01.
- (4) One (1) baghouse for particulate control, located in Plant 42, identified as D42-02, controlling emissions from woodworking equipment with a maximum throughput capacity of 3,000 pounds per hour, and exhausting at stack D42-02.
- (5) One (1) baghouse for particulate control, located in Plant 48, identified as D48-05, controlling emissions from woodworking equipment with a maximum throughput capacity of 13,000 pounds per hour, and exhausting at stack D48-05.
- (6) One (1) baghouse for particulate control, located in Plant 48, identified as D48-03, controlling emissions from woodworking equipment with a maximum throughput capacity of 5,000 pounds per hour, and exhausting at stack D48-03.
- (7) One (1) baghouse for particulate control, located in Plant 48, identified as D48-04, controlling emissions from woodworking equipment with a maximum throughput capacity of 3,000 pounds per hour, and exhausting at stack D48-04.

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

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

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

Pursuant to 326 IAC 6-3 (Process Operations), the allowable particulate emissions from the woodworking facilities shall not exceed the pounds per hour emission rates shown in the following table:

<b>Stack</b>	<b>Process Weight (Pounds/Hour)</b>	<b>PM Emission Rate (lbs/hour)</b>
D48-01	10,000	12.05
D48-02	2,000	4.10
D42-01	2,000	4.10
D42-02	3,000	5.40
D48-03	5,000	7.48
D48-04	3,000	5.40

Stack	Process Weight (Pounds/Hour)	PM Emission Rate (lbs/hour)
D48-05	13,000	13.4

The pounds 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:

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

**D.2.2 Particulate Matter (PM and PM<sub>10</sub>) [326 IAC 2-2]**

- (a) Baghouse D42-02 shall have an outlet grain loading of 0.01 grains/acf and an air flow rate of 12,500 acfm, which is equivalent to PM/PM<sub>10</sub> emissions of 4.7 tons per year.
- (b) Baghouse D48-05 shall have an outlet grain loading of 0.01 grains/acf and an air flow rate of 22,000 acfm, which is equivalent to PM/PM<sub>10</sub> emissions of 8.7 tons per year.

Compliance with this Condition makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

**D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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

**Compliance Determination Requirements**

**D.2.4 Testing Requirements [326 IAC 2-1.1-11] [326 IAC 2-7-6(1),(6)]**

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**D.2.5 Particulate Matter (PM)**

- (a) Pursuant to PC (20) 1730, issued on February 21, 1989;
  - (1) The baghouse D48-01 and cyclone D48-02, for PM control shall be in operation at all times when the woodworking facilities are in operation; and
  - (2) The visible emissions from the baghouse, D48-01 and D48-02, for PM control shall not exceed 10% opacity.
- (b) Cyclone D42-01 and the baghouses D42-02 and D48-05 used for PM control, shall be in operation at all times when the woodworking facilities are in operation.
- (c) Pursuant to MSM 039-15249-00087, issued May 9, 2002, the baghouses D48-03 and D48-04 for PM control shall be in operation at all times when the woodworking facilities are in operation.

## **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

### **D.2.6 Visible Emissions Notations**

---

- (a) Daily visible emission notations of baghouse and cyclone stack exhausts (D48-01, D48-02, D-48-03, D48-04, D48-05, D42-01 and D42-02) 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

### **D.2.7 Particulate Control Equipment Inspections**

---

- (a) An inspection shall be performed each calendar quarter of all bags controlling the 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.
- (b) An inspection shall be performed each calendar quarter of the cyclones controlling the woodworking operation when venting to the atmosphere. Cyclone inspections shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors.

### **D.2.8 Broken or Failed Bag Detection or Cyclone Failure Detection**

---

- (a) In the event that bag failure has been observed for the baghouse when venting to the atmosphere:
  - (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). 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, Implementation, Records, and Reports, shall be considered a violation of this permit.

- (2) For single compartment baghouses, 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).
- (b) 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. 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). Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### **D.2.9 Record Keeping Requirements**

---

- (a) To document compliance with Condition D.2.6, the Permittee shall maintain records of daily visible emission notations of the woodworking stacks' exhaust when venting to the atmosphere. When equipment is venting into the building, no monitoring records will be required.
- (b) To document compliance with Condition D.2.7, the Permittee shall maintain records of the results of the inspections required under Condition D.2.7 and the dates the vents are redirected.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### SECTION D.3

### FACILITY OPERATION CONDITIONS

#### Facility Description [326 IAC 2-7-5(15)]:

(c) Fiberglass Operations:

- (1) One (1) fiberglass motor home parts manufacturing line (identified as SB42-1 and SB42-2), consisting of one (1) fiberglass booth equipped with one (1) air assisted airless gel coat application system, one (1) air assisted airless resin application system and one (1) flow coat resin application system. The fiberglass booth (SB42-1) may be used for wood finishing operations using HVLP spray guns. The fiberglass booths (SB42-1 and SB42-2) are equipped with dry filters for overspray, which exhaust to stack GV42.
- (2) One (1) fiberglass prep and clean-up area, exhausting to stack GV42.
- (3) One (1) sander, with dry filters for PM control, exhausting to stack GV42.
- (4) Two (2) routers, each with dry filters for PM control, and both exhausting to stack GV42.

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

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

##### D.3.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to CP 039-10299-00087, issued February 5, 1999, and 326 IAC 6-3 (Process Operations):

- (a) The fiberglass panel manufacturing line shall have a PM allowable emission using the following equation:

$$E = 4.10 P^{0.67} \quad \text{Where: } E = \text{rate of emissions in pounds hour} \\ P = \text{Process weight rate in tons per hour.}$$

- (b) The two (2) routers and one (1) sander have a process weight rate of 75 pounds per hour each and are not already regulated by 326 IAC 6-1 or any New Source Performance Standard, therefore the allowable PM emissions shall not exceed 0.551 pounds per hour each.

##### D.3.2 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

Pursuant to CP 039-10299-00087, issued February 5, 1999, the VOC content of the gel coats and resins delivered to the applicator of the fiberglass operation shall be limited such that the potential emissions of VOC shall be less than twenty-five (25) tons per twelve (12) consecutive months, rolled on a monthly basis. Therefore, the best available control technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply.

##### D.3.3 Hazardous Air Pollutants (HAPs) [326 IAC 2-1-4.4]

Pursuant to CP 039-10299-00087, issued February 5, 1999, the HAP content of the gel coats and resins delivered to the applicator of the fiberglass operation shall be limited such that the potential emissions of HAPs shall be limited such that the potential to emit (PTE) of a single HAP shall be less than ten (10) tons per twelve (12) consecutive months and a combination of HAPs shall be less than twenty-five (25) tons per twelve (12) consecutive months, each rolled on a monthly basis. Therefore, 326 IAC 2-1-4.4, New Source Toxics Control, does not apply.

#### D.3.4 Wood Finishing Operations

---

The Permittee may use the fiberglass booths (SB42-1 and SB42-2) for fiberglass operations or wood finishing operations. The Permittee shall not simultaneously perform fiberglass and woodfinishing operations in the fiberglass booth. When used for wood finishing operations, the Permittee shall use HVLP spray guns and shall comply with the conditions provided in Section D.1 of this permit.

#### D.3.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

---

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

### Compliance Determination Requirements

#### D.3.6 Testing Requirements [326 IAC 2-1.1-11] [ 326 IAC 2-7-6(1),(6)]

---

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the limits specified in Conditions D.3.1, D.3.2, and D.3.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

#### D.3.7 Volatile Organic Compounds (VOC)

---

Compliance with the VOC content and usage limitations contained in Condition D.3.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

#### D.3.8 VOC Emissions (VOC)

---

Pursuant to CP 039-10299-00087, issued February 5, 1999, compliance with the limit in Condition D.3.2, shall be determined based upon the following criteria:

- (a) Monthly usage by weight, monomer content and method of application for each gel coat and resin shall be recorded. VOC emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, multiplying the other material usage rates by the percent VOC and summing those emissions for all gel coats, resins and all other VOC containing materials. Emission factors shall be obtained from the reference approved by IDEM, OAQ (specified below).
- (b) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA-approved form, emission factors shall be taken from the following reference approved by IDEM, OAQ: "Unified Emission Models for Open Molding of Composites", Composites Fabricators Association, April, 1999.

#### D.3.9 HAP Emissions (HAP)

---

Pursuant to CP 039-10299-00087, issued February 5, 1999, compliance with the limit in Condition D.3.3, shall be determined based upon the following criteria:

- (a) Monthly usage by weight, monomer content and method of application for each gel coat and resin shall be recorded. HAPs' emissions shall be calculated by multiplying the HAPs' usage of each gel coat and resin by the emission factor that is appropriate for the monomer content and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ (specified below).
- (b) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA-approved form, emission factors shall be taken from the

following reference approved by IDEM, OAQ: "Unified Emission Models for Open Molding of Composites", Composites Fabricators Association, July, 2001.

#### D.3.10 Particulate Matter (PM)

---

Pursuant to CP 039-10299-00087, issued February 5, 1999, the dry filters for particulate matter overspray shall be properly in place and maintained to ensure integrity and particulate loading of the filters at all times when the fiberglass manufacturing line, including the sander and routers, is in operation.

#### D.3.11 Monitoring

---

(a) Pursuant to CP 039-10299-00087, issued February 5, 1999:

- (1) All operators that perform spray-up or gelcoat operations or booth maintenance, shall be trained in the proper set-up and operation of the particulate control system. All existing operators shall be trained within sixty (60) days of the date of permit issuance. All new operators shall be trained upon hiring or transfer.
- (2) Training shall include proper filter alignment, filter inspection and maintenance, and troubleshooting practices.
- (3) All operators shall be given refresher training annually.

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

### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### D.3.12 Record Keeping Requirements

---

Pursuant to CP 039-10299-00087, issued February 5, 1999:

- (a) To document compliance with Conditions D.3.2 and D.3.3, the Permitted shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAPs' emission limits established in Condition D.3.2 and D.3.3.
- (1) The amount of each resin and gel coat used. The VOC and mass weighted monomer content of each resin and gel coat used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) The volume weighted VOC content of the coatings used for each month;
  - (3) The cleanup solvent usage for each month;
  - (4) The total VOC usage for each month;
  - (5) The weight of VOCs emitted for each compliance period;
  - (6) The total HAP usage for each month; and
  - (7) Method of application and other emission reduction techniques for each resin and gel coat use for each month.

- (b) To document compliance with Condition D.3.9, the Permittee shall maintain records of any non-routine maintenance activities performed on particulate emission control devices which have air flows greater than four thousand (4,000) cfm.
- (c) To document compliance with Condition D.3.10, the training program shall be written and retained on site. A log of the training program, the list of trained operators and training records, and additional inspections prescribed by the Preventive Maintenance Plan shall be maintained on site or available within one (1) hour for inspection by IDEM.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.3.13 Reporting Requirements

Pursuant to CP 039-10299-00087, issued February 5, 1999, a quarterly summary of the information to document compliance with Conditions D.3.2 and D.3.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for a Part 70 Minor Source Modification and Part 70 Minor Permit Modification

### Source Background and Description

Source Name:	Monaco Coach Corporation
Source Location:	1205 East Lincoln Street, Nappanee, Indiana 46550
County:	Elkhart
SIC Code:	2431
Operation Permit No.:	039-61116-00087
Operation Permit Issuance Date:	June 26, 2002
Minor Source Modification No.:	039-17375-00087
Minor Permit Modification No.:	039-17437-00087
Permit Reviewer:	ERG/AAB

The Office of Air Quality (OAQ) has reviewed a modification application from Monaco Coach Corporation relating to the construction of the following emission unit and pollution control devices:

(a) Surface Coating:

- (3) One (1) paint booth (identified as SB42-3), located in Plant 42, used in conjunction with SB 42-1 and SB42-2 for coating wood cabinets using HVLP spray guns and having a maximum throughput capacity of 120 units per hour. Emissions of particulate matter are controlled using dry filters, which exhaust at stack SV42-3. This unit will be constructed in 2003.

The source also requested the following changes be made to the permit:

1. Rename the existing fiberglass and resin application booths as SB42-1 and SB42-2:

The existing fiberglass operation consists of two surface coating booths with one booth used for fiberglass application and the other booth used for resin application. Since these booths will at times be used in conjunction with the new surface coating booth, the source has requested for clarification purposes that these booths be renamed as SB42-1 and SB42-2. This change has been incorporated as shown in the "Proposed Changes" section of this document.

2. Delete the reference to the number of HVLP guns per booth from the description of the surface coating booths:

Due to the frequent changes between surface coating applied, the HVLP spray guns are dedicated to one surface coating. This approach reduces the amount of cleaning solvent used for cleaning HVLP guns. This change has been incorporated as shown in the "Proposed Changes" section of this document.

3. Correct the description of control device D48-02:

Control device D48-02 was originally described as a cyclone in the Title V permit. In error, the source requested the description of this control device be changed from "cyclone" to "baghouse" in the Minor Permit Modification No. 039-16199-00087, issued April 8, 2003. However, the source has now realized that the control device is in fact a cyclone and the description should not have been changed in the Minor Permit Modification. This change has been incorporated as shown in the "Proposed Changes" section of this document.

4. Update the expiration date of the permit to the date five years from issuance of this modification:

The expiration date of the Title V permit cannot be revised as requested by Monaco Coach because Title V permits have a fixed term of not more than five years (see 326 IAC 2-7-5(2)).

### History

On March 18, 2003, Monaco Coach Corporation (Monaco) submitted an application to IDEM, OAQ requesting permission to construct a new surface coating booth in Plant 42. The new paint booth will be used in conjunction with the existing fiberglass booths to form a surface coating line similar to the one currently located in Plant 48. The fiberglass booths may also be used under the alternative operating scenario already included in the permit (see Section D.3).

### Enforcement Issue

There are no enforcement actions pending.

### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
SV42-3	Surface Coating Booth SB42-3	15	2	15,000	Ambient

### Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification and Minor Permit Modification be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on March 18, 2003.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, 1 page).

### Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source 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.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	18.6
PM-10	18.6
SO <sub>2</sub>	00.0
VOC	75.3
CO	0.00
NO <sub>x</sub>	0.00
HAPs	Potential To Emit (tons/year)
Total HAPs	8.1

**Justification for Modification**

The Part 70 Operating permit is being modified through a Part 70 Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(9), because this modification consists of installing an additional surface coating booth which is of the same type as the existing permitted surface coating booths and which will comply with the same applicable requirements and permit terms and conditions as the existing surface coating booths. In the current Title V permit, the VOC emissions from the source are limited to less 250 tons per year. The source will continue to comply with this VOC limit. Therefore, this modification is not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration).

The permit modification is being performed through a Minor Permit Modification pursuant to 326 IAC 2-7-12(b) because it does not violate any applicable requirements and does not involve significant changes to existing monitoring, reporting, or record keeping requirements in the Part 70 Permit.

**County Attainment Status**

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	maintenance attainment
CO	attainment
Lead	attainment

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

**Source Status**

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

Pollutant	Emissions (tons/year)
PM	<250
PM-10	<250
SO <sub>2</sub>	<100
VOC	<250
CO	<100
NO <sub>x</sub>	<100

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and is not one of the 28 listed source categories.
- (b) These emissions are based upon the Title V permit (No. T039-6116-00087), which was issued on June 26, 2002.

**Potential to Emit of Modification After Issuance**

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Process/facility	Potential to Emit (tons/year)					
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>
Total emissions for modification	0.93	0.93	0.00	75.3	0.00	0.00
Total emissions from existing emission unit	57.3	57.3	<100	<250	<100	<100
Total emission from source after modification	58.3	58.3	<100	<250	<100	<100
PSD Threshold Levels	250	250	250	250	250	250

This modification to an existing major stationary source is not major because the emission increase is less than the PSD threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

**Federal Rule Applicability**

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) The new surface coating facility is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63, Subpart JJ - National Emission Standards for Wood Furniture Manufacturing Operations (326 IAC 20-14) because it is used to apply surface coatings to wood furniture and is located at a plant that is a major source of hazardous air pollutants. Pursuant to 40 CFR JJ, the new

surface coating booth shall comply with the same requirements as those currently required for the existing surface coating booths.

- (c) This minor modification does not involve a pollutant-specific emissions unit:
- (1) with the potential to emit air pollutants (including VOC) before controls equal to or greater than one hundred (100) tons per year, and
  - (2) that is subject to an emission limit and has a control device that is necessary to meet that limit.

Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable.

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

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

In a previous permit (PC(20) 1730, issued February 21, 1989), the VOC emissions from this source were limited so that the source could remain a minor source under 326 IAC 2-2 (PSD). Although the source is adding an additional coating booth, the source will continue to comply with the existing 250 tons per year VOC limit. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply.

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

Although the potential HAP emissions are greater than the major thresholds (i.e., greater than 10 tons per year for a single HAP and greater than 25 tons per year for a combination of HAPs), the proposed modification does not trigger 326 IAC 2-4.1 because the new surface coating booth is subject to the requirements of 40 CFR 63, Subpart JJ - National Emission Standards for Wood Furniture Manufacturing Operations.

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

This source is subject to 326 IAC 2-6 (Emission Reporting), because it is located in Elkhart County and has potential to emit VOC greater than 10 tons of VOC per year. Pursuant to this rule the Permittee must submit an annual emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The emission statement should cover the period defined in 326 IAC 2-6-2(8) for emission statement operating 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 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.

### **State Rule Applicability - Surface Coating Booth SB42-3**

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

Although constructed after January 1, 1980, the new surface coating booth is not subject to the requirements of 326 IAC 8-1-6 because the new surface coating booth is subject to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating).

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

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

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

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

The will comply with this rule using HVLP guns in the new surface coating booth.

326 IAC 6-3-2 (Particulate Emission Limitation)

On June 12, 2002, revisions to the 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this rule was previously referred to as 326 IAC 6-3 (Process Operations). As of the date this permit is being issued these revisions have not been approved by EPA into the Indiana State Implementation Plan (SIP); therefore, the following requirements from the previous version of 326 IAC 6-3 (Process Operations), which has been approved into the SIP will remain applicable requirements until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action.

Pursuant to 40 CFR 52, Subpart P, the allowable particulate emission rate from the surface coating booth SB42-3 shall not exceed the pounds per hour limit calculated using 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:

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

Pursuant to 326 IAC 6-3-2(d), the dry filters for particulate control shall be in operation in accordance with manufacturer's specifications and control emissions from the surface coating booth at all times the booth is in operation. This requirement to operate the control is not federally enforceable.

## Compliance Requirements

Permits issued under 326 IAC 2-7 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 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous

compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as follows:

The surface coating operation has applicable compliance monitoring conditions as specified below:

- (a) For the surface coating operations, SB42-1 through SB42-3, the Permittee shall implement an operator-training program.
  - (1) All operators that perform painting operations or booth maintenance, shall be trained in the proper set-up and operation of the particulate control system. All existing operators shall be trained within sixty (60) days of the date of permit issuance. All new operators shall be trained upon hiring or transfer.
  - (2) Training shall include proper filter alignment, filter inspection and maintenance, and troubleshooting practices.
  - (3) All operators shall be given refresher training annually.
- (b) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the dry filters must be maintained and operated properly to ensure compliance with 40 CFR 52, Subpart P.

## Testing

Testing is not required for the new surface coating operation, because the source will demonstrate compliance with the VOC limitation by maintaining records of VOC usage.

## Proposed Changes

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

---

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

- (a) Surface Coating:
  - (1) Five (5) paint booths, located in Plant 48, identified as B48-1 through B48-5, constructed in 1984, equipped with ~~five (5)~~ HVLP spray guns for wood furniture and cabinet coating, with a maximum capacity at each spray booth of five (5) gallons per hour of coating, using dry filters for overspray control, and exhausting at stacks SV48-01 for booth B48-1, SV48-02 for B48-2, SV48-03 for B48-3, SV48-04 for B48-4, and SV48-05 for B48-5. ~~Three (3) of the five (5)~~ **The** HVLP spray guns may be used in the lamination and fiberglass booths (located in Plant 42) for wood furniture and cabinet coating.
  - (2) One (1) wood finishing paint line, located in Plant 48, consisting of the following equipment:
    - (B) Three (3) paint booths, identified as B48-6 through B48-8, constructed in 1999, equipped with ~~three (3)~~ HVLP guns for stain, topcoat and sealer

applications, with a total maximum raw material throughput of 120 units per hour per booth, using dry filters for overspray control, and exhausting at stacks SV48-6, SV48-7 and SV48-8, respectively.

- (3) **One (1) paint booth (identified as SB42-3), located in Plant 42, used in conjunction with SB42-1 and SB42-2 for coating wood cabinets using HVLP spray guns and having a maximum throughput capacity of 120 units per hour. Emissions of particulate matter are controlled using dry filters, which exhaust at stack SV42-3. This unit was constructed in 2003.**
  - (34) One (1) lamination spray adhesive booth, located in Plant 42, identified as lam42, using ~~one (1) a~~ HVLP spray gun, with a maximum capacity of 14 gallons per day of adhesive, using dry filters for overspray control, and exhausting at GV42. The lamination booth may be used for wood finishing operations using HVLP spray guns from paint booths B48-1 through B48-5.
- (b) Woodworking Operations controlled by:
- (2) One (1) ~~baghouse~~ **cyclone** for particulate control, located in Plant 48, identified as D48-02, with a maximum capacity of 2000 pounds per hour, and exhausting at stack D48-02.
- (c) Fiberglass Operations:
- (1) One (1) fiberglass motor home parts manufacturing line (**identified as booths SB42-1 and SB42-2**), consisting of one (1) fiberglass booth equipped with one (1) air assisted airless gel coat application system, one (1) air assisted airless resin application system and one (1) flow coat resin application system. The fiberglass booth may be used for wood finishing operations using HVLP spray guns ~~from paint booths B48-1 through B48-5~~. The fiberglass booths (**SB42-1 and SB42-2**) ~~is are~~ equipped with dry filters for overspray which exhaust to stack GV42.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (a) Surface Coating:
- (1) Five (5) paint booths, located in Plant 48, identified as B48-1 through B48-5, constructed in 1984, equipped with ~~five (5)~~ HVLP spray guns for wood furniture and cabinet coating, with a maximum capacity at each spray booth of five (5) gallons per hour of coating, using dry filters for overspray control, and exhausting at stacks SV48-01 for booth B48-1, SV48-02 for B48-2, SV48-03 for B48-3, SV48-04 for B48-4, and SV48-05 for B48-5. ~~Three (3) of the five (5)~~ **The** HVLP spray guns may be used in the lamination and fiberglass booths (located in Plant 42) for wood furniture and cabinet coating.
  - (2) One (1) wood finishing paint line, located in Plant 48, consisting of the following equipment:
    - (A) One (1) wood prep and clean-up area with a total maximum raw material throughput of 120 units per hour per booth; and
    - (B) Three (3) paint booths, identified as B48-6 through B48-8, constructed in 1999, equipped with ~~three (3)~~ HVLP guns for stain, topcoat and sealer applications, with a total maximum raw material throughput of 120 units per hour per booth, using dry filters for overspray control, and exhausting at stacks SV48-6, SV48-7 and SV48-8, respectively.
  - (3) **One (1) paint booth (identified as SB42-3), located in Plant 42, used in conjunction with SB42-1 and SB42-2 for coating wood cabinets using HVLP spray guns and having a maximum throughput capacity of 120 units per hour. Emissions of particulate matter are controlled using dry filters, which exhaust at stack SV42-3. This unit was constructed in 2003.**
  - (~~3~~4) One (1) lamination spray adhesive booth, located in Plant 42, identified as lam42, using ~~one (1)~~ a HVLP spray gun, with a maximum capacity of 14 gallons per day of adhesive, using dry filters for overspray control, and exhausting at GV42. The lamination booth may be used for wood finishing operations using HVLP spray guns from paint booths B48-1 through B48-5.

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

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

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), for B48-1 through B48-5, and ~~lam42~~ **SB42-3**, pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8, and pursuant to Administrative Amendment 039-16234-00087 for lam42 and the fiberglass booths (**SB42-1 and SB42-2**) in Section D.3, the surface coatings applied to wood furniture and cabinets shall utilize one of the following application methods:

### D.1.3 Particulate Matter (PM) [40 CFR 52, Subpart P]

Pursuant to 40 CFR 52, Subpart P and pursuant to PC (20) 1730, issued on February 21, 1989 for B48-1 through B48-5, and pursuant to the Exemption issued on March 4, 1987, and CP 039-10442-00087, issued April 21, 1999 for B48-6 through B48-8, and pursuant to Administrative Amendment 039-16234-00087 for lam42 and the fiberglass booth in Section D.3 **and pursuant to MSM 039-17357-00087 for SB42-3**, the PM from each of the surface coating operations, shall not exceed the pound per hour emission rate established as E in the following formula:

D.1.5 Wood Furniture NESHAP [40 CFR 63, Subpart JJ]

For the surface coating operations performed in B48-1 through B48-5, **SB42-3**, lam42, and the fiberglass booth described in Section D.3, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8:

D.1.6 Work Practice Standards [40 CFR 63.803]

For the surface coating operations, performed in B48-1 through B48-5, **SB42-3**, lam42, and the fiberglass booth described in Section D.3, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8, the owner or operator of an affected source subject to this subpart shall prepare and maintain a written work practice implementation plan within sixty (60) calendar days after the compliance date. The work practice implementation plan must define environmentally desirable work practices for each wood furniture manufacturing operation and at a minimum addresses each of the following work practice standards as defined under 40 CFR 63.803:

D.1.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

For the surface coating operations B48-1 through B48-5, **SB42-3**, lam42, and the fiberglass booths described in Section D.3, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8, a Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

D.1.9 Testing Requirements [ 326 IAC 2-1.1-11] [326 IAC 2-7-6(1),(6)] [40 CFR 63]

For the surface coating operations performed in B48-1 through B48-5, **SB42-3**, lam42 and the fiberglass booth described in Section D.3, and pursuant to CP 039-10442-00087, issued April 24, 1999, for B48-6 through B48-8:

D.1.10 Volatile Organic Compounds (VOC)

For the surface coating operations performed in B48-1 through B48-5, **SB42-3**, lam42, and the fiberglass booth described in Section D.3, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8, compliance with the VOC content and usage limitations contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.13 Monitoring

(a) For the surface coating operations, B48-6 through B48-8, **and SB42-3**, the Permittee shall implement an operator-training program.

D.1.14 Particulate [326 IAC 6-3-2(d)]

The dry filters for particulate control shall be operated in accordance with manufacturer's specifications and control emissions from the surface coating facilities at all times when booths B48-1 through B48-5, **SB42-3**, lam42, and the fiberglass described in Section D.3, are in operation.

D.1.15 Record Keeping Requirements

For the surface coating operations performed in B48-1 through B48-5, **SB42-3**, lam42, and the fiberglass booth described in Section D.3, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8:

D.1.16 Reporting Requirements

For the surface coating operations performed in B48-1 through B48-5, **SB42-3**, lam42, and the fiberglass booth described in Section D.3, and pursuant to CP 039-10442-00087, issued April 21, 1999, for B48-6 through B48-8:

#### D.2.5 Particulate Matter (PM)

---

- (a) Pursuant to PC (20) 1730, issued on February 21, 1989;
- (1) The baghouses, D48-01 and **cyclone** D48-02, for PM control shall be in operation at all times when the woodworking facilities are in operation; and

### SECTION D.3 FACILITY OPERATION CONDITIONS

#### Facility Description [326 IAC 2-7-5(15)]:

- (c) Fiberglass Operations:
- (1) One (1) fiberglass motor home parts manufacturing line (**identified as SB42-1 and SB42-2**), consisting of one (1) fiberglass booth equipped with one (1) air assisted airless gel coat application system, one (1) air assisted airless resin application system and one (1) flow coat resin application system. The fiberglass booth (**SB42-1**) may be used for wood finishing operations using HVLP spray guns from paint booths ~~B48-1 through B48-5~~. The fiberglass booths (**SB42-1 and SB42-2**) is are equipped with dry filters for overspray, which exhaust to stack GV42.
- (2) One (1) fiberglass prep and clean-up area, exhausting to stack GV42.
- (3) One (1) sander, with dry filters for PM control, exhausting to stack GV42.
- (4) Two (2) routers, each with dry filters for PM control, and both exhausting to stack GV42.

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

#### D.3.4 Wood Finishing Operations

---

The Permittee may use the fiberglass booths (**SB42-1 and SB42-2**) for fiberglass operations or wood finishing operations. The Permittee shall not simultaneously perform fiberglass and woodfinishing operations in the fiberglass booth. When used for wood finishing operations, the Permittee shall use HVLP spray guns from paint booths ~~B48-1 through B48-5~~ and shall comply with the conditions provided in Section D.1 of this permit.

#### D.3.9 HAP Emissions (HAP)

---

- (b) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA-approved form, emission factors shall be taken from the following reference approved by IDEM, OAQ: "Unified Emission Models for Open Molding of Composites", Composites Fabricators Association, ~~April, 1999~~ **July, 2001**.

### Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 039-17375-00087. The operation of this proposed modification shall be subject to the conditions of the proposed Part 70 Minor Permit Modification No. 039-17437-00087.

**Appendix A: Emissions Calculations**  
**VOC, HAP, and Particulate Emissions from**  
**From Surface Coating Operations Performed in Booths 48-1 to 48-8 and 42-1 to 42-3**

**Company Name: Monaco Coach Corporation**  
**Address City IN Zip: 1205 East Lincoln Street, Nappanee, Indiana 46550**  
**SSM: 039-17375**  
**Pit ID: 039-00087**  
**Reviewer: ERG/AAB**  
**Date: April 17,2003**

Material	Density (Lb/Gal)	Weight % VOC	Weight % HAP	Weight % Solids	Usage (lbs/year)*	Estimated VOC Emissions (tons/yr)	Estimated HAP Emissions (tons/yr)	Estimated PM Emissions (tons/yr)
<b>Sealers/Topcoats</b>								
Valtec WW Sealer	7.5	75.20%	25.1%	24.8%	47000	17.7	5.9	5.8
Valtec WW LAC-40	7.7	73.80%	10.4%	26.2%	360000	132.8	18.7	47.1
<b>Stains</b>								
ST-1044 Windsor Cherry	6.6	91.00%	0.0%	3.2%	14000	6.4	0.0	0.22
Frost Maple	7.6	84.00%	0.0%	16.0%	10000	4.2	0.0	0.80
LP-500 Dash Grey Lacquer Paint	7.8	70.60%	3.0%	29.4%	15000	5.3	0.2	2.2
ST-1043 Spiced Walnut	6.7	86.80%	0.0%	4.3%	2000	0.9	0.0	0.043
ST-1290 New Dynasty Haze	6.8	89.20%	0.0%	2.8%	35000	15.6	0.0	0.49
ST-10503 New Regal Cherry	6.7	94.70%	0.0%	5.3%	20000	9.5	0.0	0.53
ST-1478 New Autumn Haze	6.7	95.20%	0.0%	4.8%	56000	26.7	0.0	1.36
<b>Solvents/Thinners</b>								
Solvent Blend	6.5	100.00%	0.0%	0.0%	25000	12.5	0.0	0.0
Stain Thinner	6.5	100.00%	0.0%	0.0%	5600	2.8	0.0	0.0
Isopropyl Alcohol	6.5	100.00%	0.0%	0.0%	2000	1.0	0.0	0.0
Acetone	6.6	100.00%	0.0%	0.0%	160	0.080	0.0	0.0
Exxate 600	7.3	100.00%	0.0%	0.0%	580	0.29	0.0	0.0
<b>Aerosol Coatings</b>								
Finishers Choice Lacquer	6.6	78.80%	0.0%	21.2%	80	0.032	0.0	0.0
Top Cote Aerosol	5.5	75.00%	0.0%	25.0%	224	0.084	0.0	0.0
<b>Spray Booth Coatings</b>								
Spray Booth Coating A7785A	8.8	95.00%	0.0%	5.0%	1600	0.76	0.0	0.0
<b>Totals for all Booths</b>						235.8	24.8	58.6
<b>Totals for New Booth</b>						21.5	2.3	5.3

\* Estimated Actual Usage per year

After Controls =

0.27

**METHODOLOGY**

Estimated Actual Emissions Tons per Year = Wt % Pollutant \* Amount of Material Applied (lbs/yr) \* (1 ton/2000 lbs)