

**CONSTRUCTION PERMIT  
OFFICE OF AIR MANAGEMENT**

**Jasper Seating, Inc.  
932 Mill Street  
Jasper, Indiana 47547**

is hereby authorized to construct

the equipment listed in the Page 2 of this permit.

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-037-8869-00010	
Issued by:  Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

The following equipment is to be covered under this permit:

Modifications to five (5) surface coating booths, identified as Spray Booths #8 - #12 (EU-08, EU-09, EU-10, EU-11, EU-12), with a maximum capacity of coating 2000 lbs wood per hour (120 wooden chairs per hour), each utilizing an air assisted airless spray application system, and each equipped with dry filters for particulate matter control. The facilities are being modified in the following ways:

- (a) Spray Booth #8, (EU-08), originally installed in 1988, will be increased in length by two (2) feet, and one (1) additional spray gun will be installed for a total of two (2) spray guns, with a maximum capacity of spraying 9.6 gallons of coating material per hour;
- (b) Spray Booth #9, (EU-09), originally installed in 1988, will be increased in length by 8 feet and two (2) additional spray guns will be installed for a total of four (4) spray guns, with a maximum capacity of spraying 29.3 gallons of coating material per hour;
- (c) Spray Booth #10, (EU-10), originally installed prior to 1970, will be replaced without additional guns, and will maintain a maximum capacity of spraying 37.5 gallons of coating material per hour;
- (d) Spray Booth #11, (EU-11), originally installed in 1988; will have five (5) additional spray guns installed for a total of seven (7) guns with a maximum capacity of spraying 62.6 gallons of coating material per hour; and
- (e) Spray Booth #12, (EU-12), originally installed in 1988; will have five (5) additional spray guns installed for a total of seven (7) guns with a maximum capacity of spraying 71.5 gallons of coating material per hour.

## **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 26 IAC 2-7-19 (Fees)
  - (e) The Permittee has submitted their Part 70 permit on April 30, 1996 for the existing source. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

Phase Construction Time Frame

7. That pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the IDEM may revoke this permit to construct if the:
- (a) Construction of Phase 1 has not begun within eighteen (18) months from the date of the effective date of this permit or if during the construction of Phase 1, work is suspended for a continuous period of one (1) year or more.
  - (b) Construction of Phase 2 has not begun within eighteen (18) months after the operation of Phase 1 or if during the construction of Phase 2, work is suspended for a continuous period of one (1) year or more.

The OAM may extend such time upon satisfactory showing that an extension, formally requested by the Permittee is justified.

8. 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 office furniture production plant 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 total input VOC delivered to the applicators of all surface coating operations shall be limited to 20.22 tons per month. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, will not apply. This operating condition shall supersede the facility specific limits in Operating Condition #2 of PC (19) 1688, issued on June 10, 1988.

9. Wood Furniture NESHAP [40CFR Part 63, Subpart JJ]

- (a) The wood furniture coating operation is 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 November 21, 1997,
- (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.
    - (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. Other thinners have an allowable maximum percent (%) VHAP by weight of ten (10) percent; 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.
    - (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 for existing sources or two-tenths (0.2) for new source) pound VHAP per pound solids.
    - (C) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids.
  - (3) The strippable spray booth material shall have a maximum VOC content of eight-tenths pounds VOC per pounds solids.
- (c) Work Practice Standards [40 CFR 63.803]  
Pursuant to 40 CFR 63 Subpart JJ, the owner or operator of an affected source 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 address each of the following work practice standards as defined under 40 CFR 63.803.

- (1) Operator training course,
- (2) Leak inspection and maintenance plan,
- (3) Cleaning and washoff solvent accounting system,
- (4) Chemical composition of cleaning and washoff solvents,
- (5) Spray booth cleaning,
- (6) Storage requirements,
- (7) Conventional air spray guns shall only be used under the circumstances defined under 40 CFR 63.803(h),
- (8) Line cleaning,
- (9) Gun cleaning,
- (10) Washoff operations,
- (11) Formulation assessment plan for finishing operations.

#### Performance Testing

12. If future stack testing is required for VOC and/or VHAP to determine compliance with Operating Condition #9, these tests shall be performed according to 326 IAC 3-2.1 (Source Sampling Procedures) using the methods specified in the rule or as approved by the Commissioner.
- (a) A test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in advance of the test.
  - (b) The Compliance Data Section shall be notified of the actual test date at least two (2) weeks prior to the date.
  - (c) All test reports must be received by the Compliance Data Section within 45 days of completion of the testing.
  - (d) Whenever the results of the stack test performed exceed the level specified in this permit, appropriate corrective actions shall be implemented within thirty (30) days of receipt of the test results. These actions shall be implemented immediately unless notified by OAM that they are acceptable. The Permittee shall minimize emissions while the corrective actions are being implemented.
  - (e) Whenever the results of the stack test performed exceed the level specified in this permit, a second test to demonstrate compliance shall be performed within 120 days. Failure of the second test to demonstrate compliance may be grounds for immediate revocation of this permit to operate the affected facility.

#### Opacity Limitation

11. That pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:
- (a) Visible emissions shall not exceed an average of 30% opacity in 24 consecutive readings.
  - (b) Visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

Fugitive Dust Emissions

12. That pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), the Permittee shall be in violation of 326 IAC 6-4 (Fugitive Dust Emissions) if any of the criteria specified in 326 IAC 6-4-2(1) through (4) are violated. Observations of visible emissions crossing the property line of the source at or near ground level must be made by a qualified representative of IDEM. [326 IAC 6-4-5(c)].

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 spray coating booths are in operation.
- (b) The spray coating facilities shall comply with 326 IAC 6-3-2(c) using the following equation:  
$$E = 4.10P^{0.67}$$
 where: E = rate of emission in pounds per hour,  
P = 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.

Volatile Organic Compound (VOC) Limitations

14. Additional surface coating equipment constructed under this permit shall comply with 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.

15. Record Keeping Requirements

- (a) To document compliance with Operating Condition #9(a)(b), 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 Operating Condition #9:
- (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) 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.

To document compliance with Operating Condition #9(c) the Permittee shall maintain records demonstrating actions have been taken to fulfill the requirements of the Work Practice Implementation Plan.

- (b) A log of information necessary to document compliance with operating condition #8 shall be kept monthly and shall include source-wide quantities, densities, and organic solvent contents of all coatings, solvent thinners and cleaners used, material safety data sheet (MSDS), and the date of use to assure that VOC emissions do not exceed 242.7 tons per year.

Annual Emission Reporting

16. 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, 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.

Reporting Requirements

17. That a log of information necessary to document compliance with operation permit condition nos. 8 and 9, 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) Unless otherwise specified, 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 reports shall include the following:

1. Source-wide VOC usage in tons per month, including coating, thinner and clean up solvent usage, material safety data sheets (MSDS) and the dates of use;
2. A log of information necessary to document compliance with operating condition #9, including the following:
  - (A) An Initial Compliance Report to document compliance with Operating Condition #9 and the Certification form, shall be submitted within sixty (60) calendar days following the compliance date of November 21, 1997. The initial compliance report must include data from the entire month that the compliance date falls.
  - (B) A semi-annual Continuous Compliance Report to document compliance with Operating Condition #9, and the Certification form, shall be submitted to the above address within thirty (30) days after the end of the six (6) months being reported.

The six (6) month periods shall cover the following months:

- (1) December 1 through may 31.
- (2) June 1 through November 30.

The six (6) month period shall begin on the first day of the month after which the operation commences

- (b) Unless otherwise specified in this permit, any notice, report, or other submissions required by this permit shall be timely if:
  - (1) Postmarked on or before the date it is due; or
  - (2) 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.

Emergency Reduction Plans

18. Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

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

within 180 calendar days from the issuance date of this permit.

(c) 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. If after this time, the Permittee does not submit an approvable ERP, IDEM, OAM, shall supply such a plan.

(d) 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.

(e) 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.

(f) 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**

Company Name: Jasper Seating, Inc.  
Location: 932 Mill St., Jasper, IN 47547  
Permit No.: CP-037-8869-00010  
Source: all surface coating facilities in operation at the source  
Pollutant: VOC usage  
Limit: 20.22 tons per month

**Year:** \_\_\_\_\_

Month	VOC Usage/Emissions (tons/month)

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**MALFUNCTION REPORT**

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

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

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE: IT HAS POTENTIAL TO EMIT 25 LBS/HR PARTICULATES ? \_\_, 100 LBS/HR VOC ? \_\_, 100 LBS/HR SULFUR DIOXIDE ? \_\_ OR 2000 LBS/HR OF ANY OTHER POLLUTANT ? \_\_ EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: \_\_ OR, PERMIT CONDITION # \_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON THE NEXT PAGE ? Y N

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

COMPANY: Jasper Seating, Inc. PHONE NO. (317) 241-6809

LOCATION: (CITY AND COUNTY) Jasper, Dubois county

PERMIT NO. CP037-8869 AFS PLANT ID: 037-00010 AFS POINT ID: \_\_\_\_\_ INSP: Ray Schick  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_/\_\_\_/19\_\_\_ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION:

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_/\_\_\_/19\_\_\_ AM/PM

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_

INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED

BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_



## Indiana Department of Environmental Management Office of Air Management

### Technical Support Document (TSD) for New Construction and Operation

#### Source Background and Description

Source Name:	Jasper Seating, Inc.
Source Location:	932 Mill St., Jasper, IN 47547
County:	Dubois
Construction Permit No.:	CP-037-8869-00010
SIC Code:	2521
Permit Reviewer:	Jeremy Magliaro/EVP

The Office of Air Management (OAM) has reviewed an application from Jasper Seating, Inc. relating to the modification of an office furniture manufacturing plant consisting of:

- (a) Modifications to five (5) surface coating booths, identified as Spray Booths #8 - #12 (EU-08, EU-09, EU-10, EU-11, EU-12), with a maximum capacity of coating 2000 lbs wood per hour (120 wooden chairs per hour), each utilizing an air assisted airless spray application system, and each equipped with dry filters for particulate matter control. The facilities are being modified in the following ways:
- (1) Spray Booth #8, (EU-08), originally installed in 1988, will be increased in length by two (2) feet, and one (1) additional spray gun will be installed for a total of two (2) spray guns, with a maximum capacity of spraying 9.6 gallons of coating material per hour;
  - (2) Spray Booth #9, (EU-09), originally installed in 1988, will be increased in length by 8 feet and two (2) additional spray guns will be installed for a total of four (4) spray guns, with a maximum capacity of spraying 29.3 gallons of coating material per hour;
  - (3) Spray Booth #10, (EU-10), originally installed prior to 1970, will be replaced without additional guns, and will maintain a maximum capacity of spraying 37.5 gallons of coating material per hour;
  - (4) Spray Booth #11, (EU-11), originally installed in 1988; will have five (5) additional spray guns installed for a total of seven (7) guns with a maximum capacity of spraying 62.6 gallons of coating material per hour; and
  - (5) Spray Booth #12, (EU-12), originally installed in 1988; will have five (5) additional spray guns installed for a total of seven (7) guns with a maximum capacity of spraying 71.5 gallons of coating material per hour.

### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
V8	EU-08	35	2.8	8400	ambient
V9	EU-09	35	2.8	8400	ambient
V10	EU-10	35	2.8	8400	ambient
V11	EU-11	35	2.5	6250	ambient
V12	EU-12	35	2.5	6250	ambient

### 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 August 6, 1997, with additional information received on October 14, 1997.

### Emissions Calculations

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (four (4) 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)	100	892.40
Particulate Matter (PM10)	100	892.40
Sulfur Dioxide (SO <sub>2</sub> )	-	0
Volatile Organic Compounds (VOC)	250	5186.77
Carbon Monoxide (CO)	-	0
Nitrogen Oxides (NO <sub>x</sub> )	-	0
Single Hazardous Air Pollutant (HAP)	-	534.66
Combination of HAPs	-	1052.43

- (a) Allowable emissions are determined from the applicability of rule 326 IAC 2-2 for VOC and 326 IAC 2-3 for PM. See attached spreadsheets for detailed calculations.
- (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) Allowable emissions (as defined in the Indiana Rule) of VOC and PM are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.
- (d) Allowable emissions (as defined in the Indiana Rule) of a single hazardous air pollutant (HAP) are greater than 10 tons per year and/or the allowable 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.
- (e) Pursuant to the IDEM's Policy on Air Toxic Rules, dated December 13, 1995, IDEM will not enforce the provisions of 326 IAC 2-1-1(b)(1)(H), as adopted by the Air Board on March 10, 1994. This means that modification of a major source of HAPs which will increase the allowable emissions of any one (1) HAP by 4 tons per year or any combination of HAPs by 10 tons per year will not be required to obtain a construction permit. The Policy is in effect immediately and will continue to be in effect until the effective date of amendments to Indiana's rule for new and modified sources of HAPs. This Policy may be extended or modified at IDEM's discretion.

However, this construction permit is required because of the requirements of 326 IAC 2-1, Sections 1 and 3.

### **County Attainment Status**

- (a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Dubois County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Lawrence Township in Dubois County has been classified as nonattainment for PM. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (c) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

### **Source Status**

Existing Source PSD Definition, (based on existing permit # PC (19) 1688, issued June 10, 1988).

Pollutant	Emissions (ton/yr)
PM	35
PM10	35
SO <sub>2</sub>	90
VOC	249
CO	14
NO <sub>x</sub>	12

- (a) This existing source is **not** a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on the applicant's part 70 application, calculations taken from previously issued construction permits, and information supplied by the applicant.

**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 <sub>2</sub> (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO <sub>x</sub> (ton/yr)
Proposed Modification	8.35	8.35	0	119.7**	0	0
PSD or Offset Threshold Level	100	100	250	250	250	250

\*\* Total limited VOC emissions from Spray Coating Booths #8 thru #12, (EU-08, EU-09, EU-10, EU-11, EU-12), after modification are limited to 242.7 tons per year. (See Appendix A, page 2 for detailed emissions calculations. Based on the information provided by the applicant, the average source-wide VOC emissions from the two (2) most recent years (1995 and 1996) were 123.0 tons VOC per year. Therefore, the VOC emission increase due to modification = 242.7 tons/yr -123.0 tons/yr = 119.7 tons/yr. Potential emissions from combustion operations at the source are 6.3 tons VOC per year.

The VOC emissions from all surface coating operations shall be limited to 242.7 tons per year, such that total source-wide VOC emissions from combustion and surface coating shall be limited to = 6.3 tons/yr + 242.7 tons/yr = 249 tons per year. This limit shall supercede the facility specific limits in Operating Condition #2 of PC (19) 1688, issued June 10, 1988.

This modification to an existing minor stationary source is not major because the limited VOC

emission 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.

This modification to an existing minor stationary source is not major because the limited and controlled PM emission increase is less than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

### **Part 70 Permit Determination**

#### **326 IAC 2-7 (Part 70 Permit Program)**

This existing source has submitted their Part 70 (T037-5805-00010) application on April 30, 1996. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

### **Federal Rule Applicability**

#### **40 CFR Part 63, Subpart JJ, (National Emission Standards for Wood Furniture Manufacturing Operations)**

- (a) The wood furniture coating operation is 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 November 21, 1997.
- (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.
    - (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. Solvent and thinner mixtures used for other purposes have a ten percent (10%) maximum VHAP content by weight; 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.

(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 for existing sources or two-tenths (0.2) for new source) pound VHAP per pound solids.

(C) Use a control device to limit emissions to one (1.0) pound VHAP per pound solids.

(3) The strippable spray booth material shall have a maximum VOC content of eight-tenths pounds VOC per pounds solids.

(c) Work Practice Standards [40 CFR 63.803]

Pursuant to 40 CFR 63 Subpart JJ, the owner or operator of an affected source 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 address each of the following work practice standards as defined under 40 CFR 63.803.

- (1) Operator training course,
- (2) Leak inspection and maintenance plan,
- (3) Cleaning and washoff solvent accounting system,
- (4) Chemical composition of cleaning and washoff solvents,
- (5) Spray booth cleaning,
- (6) Storage requirements,
- (7) Conventional air spray guns shall only be used under the circumstances defined under 40 CFR 63.803(h),
- (8) Line cleaning,
- (9) Gun cleaning,
- (10) Washoff operations,
- (11) Formulation assessment plan for finishing operations.

**State Rule Applicability**

326 IAC 2-2 (Prevention of Significant Deterioration)

The VOC emissions from all surface coating operations shall be limited to 242.7 tons per year, such that total source-wide VOC emissions shall be limited to 249 tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply.

326 IAC 2-3 (Emission Offsets)

The increase in PM emissions from this modification is less than 100 tons per year, therefore the requirements of 326 IAC 2-3 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 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

- (a) Visible emissions shall not exceed an average of thirty percent (30%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4,
- (b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) 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) overspray from the spray coating facilities 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:

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

326 IAC 6-4 (Fugitive Dust Emissions)

The office furniture manufacturing plant shall comply with the fugitive dust limitations outlined in 326 IAC 6-4 (Fugitive Dust Emissions). No fugitive dust emissions shall be visible crossing the boundary or property line of the source.

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

Additional equipment, (new spray guns in EU-08, EU-09, EU-10, EU-11, AND EU-12), constructed under this modification shall be subject to the requirements of 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. All new spray guns will be in compliance with the rule by utilizing an air assisted airless spray application system. This requirement shall render 326 IAC 8-1-6 (BACT) not applicable. No other article 8 rules apply. .

### Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 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) This proposed modification will emit levels of air toxics greater than those that constitute major source applicability according to Section 112 of the Clean Air Act. The concentrations of these air toxics were modeled and found to be (in worst case possible) as follows: The concentrations of these air toxics were compared to the Permissible Exposure Limits (PEL) developed by the Occupational Safety and Health Administration (OSHA). The Office of Air Management (OAM) does not have at this time any specific statutory or regulatory authority over these substances.
- (b) The applicant has been notified in writing that the air toxic emissions exceed the major source applicability levels stated by Section 112 of the Clean Air Act Amendments, and that it would be beneficial, both to the applicant and to the public, for the applicant to take steps to reduce or eliminate these air toxic emissions.

### Air Toxics Analysis

Pollutant	Rate (lb/hr)	Rate @ 8,760 hr/yr (ton/yr)	Modeled Concentration (Fg/m3)	OSHA PEL (Fg/m3)	% OSHA PEL
Xylene	5.71	25.02	78.57	435,000	0.01
Toluene	2.58	11.28	78.57	752,000	0.00
Formaldehyde	0.02	0.09	78.57	93,000	0.02
Ethyl benzene	1.30	5.68	78.57	435,000	0.00
Methyl isobutylketone (MIBK)	1.64	7.17	78.57	410,000	0.00

- (c) See attached spreadsheets for detailed air toxic calculations (pages 3 and 4 Appendix A.)

### Conclusion

The modification to the office furniture manufacturing plant will be subject to the conditions of the attached proposed Construction Permit No. CP-037-8869-00010.

**Appendix A: Emission Calculations  
HAP Emission Calculations**

**Company Name:** Jasper Seating, Inc.  
**Address City IN Zip:** 932 Mill Street, Jasper, IN 47547  
**CP:** 037-8869  
**Plt ID:** 037-00010  
**Reviewer:** JM/EVP  
**Date:** November 15, 1997

**Potential Emissions (uncontrolled):**

Process	Material (1)	Density (Lb/Gal)	Gal of Mat (gal/hour)	Weight % Xylene	Weight % Toluene	Weight % Formaldehyde	Weight % Ethyl Benzene	Weight % MIBK	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Formaldehyde Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	MIBK Emissions (ton/yr)
EU-08	Washcoat	7.00	9.60	1.70%	3.30%	0.00%	0.40%	0.00%	5.00	9.71	0.00	1.18	0.00
EU-09	Sealer	7.84	29.29	3.80%	23.00%	0.20%	0.30%	0.00%	38.22	231.33	2.01	3.02	0.00
EU-10	Stain	7.08	37.50	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00
EU-11	Laquer	7.68	62.55	10.90%	0.00%	0.00%	2.60%	3.40%	229.34	0.00	0.00	54.71	71.54
EU-12	Laquer	7.68	71.48	10.90%	0.00%	0.00%	2.60%	3.40%	262.09	0.00	0.00	62.52	81.75
<b>Total Potential Uncontrolled Emissions</b>									<b>534.66</b>	<b>241.05</b>	<b>2.01</b>	<b>121.42</b>	<b>153.29</b>

**Potential Emissions (controlled):**

	Material Usage Limitation	Limited Xylene Emissions tons/yr	Limited Toluene Emissions tons/yr	Limited Formaldehyde Emissions tons/yr	Limited Ethyl Benzene Emissions tons/yr	Limited MIBK Emissions tons/yr
<b>Total Potential Controlled Emissions</b>	95.32%	<b>25.02</b>	<b>11.28</b>	<b>0.09</b>	<b>5.68</b>	<b>7.17</b>

(1) Coatings above represent typical coatings used by the source in compliance with 40 CFR 63 Subpart JJ.

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

Coating operations for the entire source, including those coating operations not listed above, shall limit VOC usage 95.32 % which equals 242.7 tons per year.

Combustion from the source produces 6.3 tons VOC per year, thus source VOC emissions will be limited to (242.7+6.3)=249 tons VOC per year.

Under 40CFR 63 Subpart JJ, the HAPs found in the spray coating materials (xylene, toluene, formaldehyde, ethyl benzene, and methyl isobutyl ketone (MIBK) are considered to be Volatile Hazardous Air Pollutants (VHAP)

**Appendix A: Emissions Summary**

**Company Name:** Jasper Seating, Inc.  
**Address City IN Zip:** 932 Mill Street, Jasper, IN 47547  
**Part 70 No.:** 037-8869  
**Plant ID:** 037-00010  
**Reviewer:** JM/EVP  
**Date:** November 15, 1997

Construction Permit PC (19) 1688, issued June 10, 1988, limits VOC input to Spray Booths EU-08, EU-09, EU-11 and EU-12 to 246 tons per year. The applicant wishes to modify Spray Booths EU-08, EU-09, EU-10, EU-11, and EU-12, while limiting source-wide VOC usage to 249 tons per year. Therefore, continued compliance with these limits and other conditions of PC (19) 1688 shall make new requirements the requirements under 326 IAC 2-2 (PSD) not applicable.

**Potential emissions of the modification:**

Process/facility	Potential Emissions (tons/year)							
	PM	PM10	SO2	VOC	CO	NOx	Single HAP	Total HAPs
Proposed Modification EU-08,EU-09,EU-10,EU-11 and EU-12, Potential Uncontrolled Emissions	892.4	892.4	0.0	5186.77	0	0	534.66	1052.43

\*\* VOC emission limitation based on Construction Permit PC (19) 1688.  
 Remaining pollutant emission rates provided by the applicant.

**Limited PTE for the source:**

Process/facility	Limited PTE (tons/year)							
	PM	PM10	SO2	VOC	CO	NOx	Single HAP	Total HAPs
Existing Natural Gas and Wood Fired Combustion Potential Emissions *	35.9	31.4	0.6	6.3	17.8	9.2	negligable	negligable
Source-wide Coating Operations (Spray & Dip Coating Lines, Mix Tanks, Test Booth) *	8.4	0.0	0.0	242.7	0.0	0.0	25.0	49.2
Woodworking Operations **	4.4	0.0	0.0	0.0	0.0	0.0	negligable	negligable
<b>Total Emissions for Source (1)</b>	<b>48.7</b>	<b>31.4</b>	<b>0.6</b>	<b>249.0</b>	<b>17.8</b>	<b>9.2</b>	<b>25.0</b>	<b>49.2</b>

\* These facilities were permitted under permit # PC (19) 1688 and permt # 19-07-90-0282.

\*\* Allowable PM limit pursuant to 326 IAC 6-1-9.

(1) Total emissions based on potential limited emissions for each facility.

The VOC emissions limit of 242.7 tons/yr limit for source-wide surface coating operations includes emissions from facilities not modified in this permit. When calculating HAPs, it was assumed that surface coating materials compliant with 40CFR 63, Subpart JJ would be utilized for all coating operations source-wide. The total HAP emissions for the source is representative of typical coatings used by the applicant, it is therefore an approximate value.

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

**Company Name:** Jasper Seating, Inc.  
**Address City IN Zip:** 932 Mill Street, Jasper, IN 47547  
**CP:** 037-8869  
**Plt ID:** 037-00010  
**Reviewer:** JM/EVP  
**Date:** November 15, 1997

Potential Emissions (uncontrolled):																	
Material (as applied) (1)	Process	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Maximum Usage (gal/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating (2)	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency	
Washcoat	EU-08	7.00	89.90%	0.00%	89.90%	0.00%	5.51%	9.600	6.3	6.29	60.41	1449.91	264.61	14.86	228.42	0.5	
Sealer	EU-09	7.84	65.49%	0.00%	65.49%	0.00%	26.23%	29.290	5.1	5.13	150.39	3609.29	658.70	173.55	39.15	0.5	
Stain	EU-10	7.08	68.60%	0.00%	68.60%	0.00%	25.85%	37.500	4.9	4.86	182.13	4371.19	797.74	182.57	37.58	0.5	
Laquer 1	EU-11	7.68	76.87%	0.00%	76.87%	0.00%	16.02%	62.550	5.9	5.90	369.27	8862.51	1617.41	243.34	73.70	0.5	
Laquer 2	EU-12	7.68	76.87%	0.00%	76.87%	0.00%	16.02%	71.480	5.9	5.90	421.99	10127.77	1848.32	278.08	73.70	0.5	
<b>Total Potential Uncontrolled Emissions:</b>											<b>1184.19</b>	<b>28420.67</b>	<b>5186.77</b>	<b>892.40</b>			
Potential Emissions (controlled):																	
											Control Efficiency:		Limited VOC lbs per Hour	Limited VOC lbs per Day	Limited VOC tons per Year	Controlled PM tons/yr	
											VOC Usage Limit (3)	PM					
<b>Total Potential Controlled Emissions:</b>											95.32%	80.00%	<b>55.41</b>	<b>1329.89</b>	<b>242.70</b>	<b>8.35</b>	

(1) Coatings above represent typical coatings used by the source in compliance with 40 CFR 63 Subpart JJ.

(2) Pursuant to Rule 326 IAC 8-1-6, (BACT) in PC (19) 1688, air assisted airless spray guns are to be used and VOC shall not exceed 7.0 pounds per gallon of coating for EU-08, EU-09, EU-11, EU-12.

(3) Coating operations for the entire source, including those coating operations not listed above, shall limit potential VOC usage by 95.32 % which equals 242.7 tons per year -

Combustion from the source produces 6.3 tons VOC per year, thus source VOC emissions will be limited to (242.7+6.3)=249 tons VOC per year.

**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) \* Maximum Material Usage (gal/hr)

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

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

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

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

Controlled emission rate = uncontrolled emission rate \* (1 - control efficiency)

**Appendix A: Emission Calculations  
Volatile Hazardous Air Pollutants (VHAP)  
From Surface Coating Operations**

**Company Name:** Jasper Seating, Inc.  
**Address City IN Zip:** 932 Mill Street, Jasper, IN 47547  
**CP:** 037-8869  
**Plt ID:** 037-00010  
**Reviewer:** JM/EVP  
**Date:** November 15, 1997

Potential Emissions (uncontrolled):														
Material (as applied) (1) (2)	Process	Density (Lb/Gal)	Weight % Volatile (H2O& VHAPS)	Weight % Water	Weight % VHAPS	Volume % Water	Weight % Non-Vol (solids)	Maximum Usage (gal/hr)	Pounds VHAP per gallon of coating less water	Pounds VHAP per gallon of coating	Potential VHAP pounds per hour	Potential VHAP pounds per day	Potential VHAP tons per year	lb VHAP /lb coating solids (3)
Washcoat	EU-08	7.00	5.40%	0.00%	5.40%	0.00%	10.10%	9.600	0.4	0.38	3.63	87.09	15.89	0.53
Sealer	EU-09	7.84	27.30%	0.00%	27.30%	0.00%	34.51%	29.290	2.1	2.14	62.69	1504.56	274.58	0.79
Stain	EU-10	7.08	0.00%	0.00%	0.00%	0.00%	31.40%	37.500	0.0	0.00	0.00	0.00	0.00	0.00
Laquer 1	EU-11	7.68	16.90%	0.00%	16.90%	0.00%	23.18%	62.550	1.3	1.30	81.18	1948.44	355.59	0.73
Laquer 2	EU-12	7.68	16.90%	0.00%	16.90%	0.00%	23.18%	71.480	1.3	1.30	92.78	2226.61	406.36	0.73
<b>Total Potential Uncontrolled Emissions:</b>											<b>240.28</b>	<b>5766.70</b>	<b>1052.42</b>	
Potential Emissions (controlled):														
										Material Usage Limit (4)	Limited VHAP lbs per Hour	Limited VHAP lbs per Day	Limited VHAP tons per Year	
<b>Total Potential Controlled Emissions</b>										95.32%	<b>11.24</b>	<b>269.84</b>	<b>49.25</b>	

- (1) The source utilizes over 200 different coatings per year. Coatings above represent typical coatings used by the source in compliance with 40 CFR 63 Subpart JJ.
  - (2) Pursuant to Rule 326 IAC 8-1.1-6, (BACT) in PC (19) 1688, air assisted airless spray guns are to be used and VOC shall not exceed 7.0 pounds per gallon of coating for EU-08, EU-09, EU-11, EU-12.
  - (3) For purposes of calculating lbs VHAP/lbs Solid, as applied, the transfer efficiency was assumed to be 100% pursuant to 40CFR 63 Subpart JJ.  
The above coatings contain less than 1.0 lbVHAP/lb solid in compliance with 40CFR 63 Subpart JJ.
  - (4) Coating operations for the entire source, including those coating operations not listed above, shall limit VOC usage 95.32 % which equals 242.7 tons per year.  
Combustion from the source produces 6.3 tons VOC per year, thus source VOC emissions will be limited to (242.7+6.3)=249 tons VOC per year.
- \* Under 40 CFR 63 Subpart JJ, the following HAPs (used in the coating material) are considered to be VHAP: xylene, toluene, ethylbenzene, formaldehyde, methyl isobutyl ketone (MIBK). See page 3 (Appendix A).

Methodology:

Pounds of VHAP per Gallon Coating less Water = (Density (lb/gal) \* Weight % VHAP) / (1-Volume % water)  
 Pounds of VHAP per Gallon Coating = (Density (lb/gal) \* Weight % VHAP)  
 Potential VHAP Pounds per Hour = Pounds of VHAP per Gallon coating (lb/gal) \* Maximum Usage (gal/hr)  
 Potential VHAP Pounds per Day = Pounds of VHAP per Gallon coating (lb/gal) \* Maximum Usage (gal/hr) \* (24 hr/day)  
 Potential VHAP Tons per Year = Pounds of VHAP per Gallon coating (lb/gal) \* Maximum Usage (gal/hr)\* (8760 hr/yr) \* (1 ton/2000 lbs)  
 Pounds VHAP per pound Solids = (Weight % VHAP) / Weight % solids  
 Controlled emission rate = limited usage rate \* (1 - control efficiency)

## Indiana Department of Environmental Management Office of Air Management

### Addendum to the Technical Support Document for New Construction and Operation

Source Name: Jasper Seating, Inc.  
Source Location: 932 Mill Street, Jasper, Indiana 45747  
County: Dubois  
Construction Permit No.: CP-037-8869-00010  
SIC Code: 2521  
Permit Reviewer: Jeremy Magliaro / EVP

On December 9, 1997, the Office of Air Management (OAM) had a notice published in the The Herald, Jasper, Indiana, stating that Jasper Seating, Inc. had applied for a construction permit to modify and operate five (5) spray coating booths with control. 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.

Upon further review by the OAM, the following revisions shall be incorporated into Construction Permit CP-037-8869-00010:

- (A) Operating Condition #9 of the Construction Permit indicates that Jasper Seating, Inc., is subject to 40 CFR 63 Subpart JJ. Depending on how the source elects to achieve compliance with 40 CFR 63 Subpart JJ, they may or may not be required to perform stack testing on the spray booths. The following condition has been entered into the permit as Operating Condition #10. All subsequent operating conditions have been renumbered accordingly. The new Operating Condition #10 reads as follows:

#### Performance Testing

- (10) If future stack testing is required for VOC and/or VHAP to determine compliance with Operating Condition #9, these tests shall be performed according to 326 IAC 3-2.1 (Source Sampling Procedures) using the methods specified in the rule or as approved by the Commissioner.
- (a) A test protocol shall be submitted to the OAM, Compliance Data Section, 35 days in advance of the test.
  - (b) The Compliance Data Section shall be notified of the actual test date at least two (2) weeks prior to the date.
  - (c) All test reports must be received by the Compliance Data Section within 45 days of completion of the testing.
  - (d) Whenever the results of the stack test performed exceed the level specified in this permit, appropriate corrective actions shall be implemented within thirty (30) days of receipt of the test results. These actions shall be implemented immediately unless notified by OAM that they are acceptable. The Permittee shall minimize emissions while the corrective actions are being implemented.

- (e) Whenever the results of the stack test performed exceed the level specified in this permit, a second test to demonstrate compliance shall be performed within 120 days. Failure of the second test to demonstrate compliance may be grounds for immediate revocation of this permit to operate the affected facility.
  
- (B) Under Operating Condition #9 of the Construction Permit, paragraph (b)(1)(B), the last sentence which reads "Solvent and thinner mixtures used for other purposes have a ten percent (10%) maximum VHAP content by weight; or", has been changed to read as follows:  
  
"Other thinners have an allowable maximum percent (%) VHAP by weight of ten (10) percent; or"
  
- (C) Under Federal Rule Applicability in the Technical Support Document under 40 CFR Part 63, Subpart JJ (National Emission Standards for Wood Manufacturing Operations), paragraph (b)(1)(B), the last sentence which reads "Solvent and thinner mixtures used for other purposes have a ten percent (10%) maximum VHAP content by weight; or", shall be changed to read as follows:  
  
"Other thinners have an allowable maximum percent (%) VHAP by weight of ten (10) percent; or"
  
- (D) Under County Attainment Status in the Technical Support Document, the following shall be noted:  
  
"Bainbridge Township in Dubois County has been classified as nonattainment for PM."