



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: March 4, 2009

RE: Prince Manufacturing, Inc. / 113-27497-00032

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-AM.dot12/3/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Mr. Stephen Scales
Prince Manufacturing, Inc.
205 Green Drive
Avilla, Indiana 46710

March 4, 2009

Re: 113-27497-00032
First Notice-Only Change to
M113-23749-00032

Dear Mr. Scales:

Prince Manufacturing, Inc. was issued a Minor Source Operating Permit (MSOP) Renewal No. M113-23749-00032 on February 23, 2007, for a stationary surface coating operation for military vehicle components located at 205 Green Drive, Avilla, Indiana 46710. On February 17, 2009, the Office of Air Quality (OAQ) received an application from the source requesting to include the process to paint flat plywood boards by roller coating, used for military flatbed trucks, using the existing paint booths, identified as Primer booth PB6 and Topcoat booth PB7. The wood panels will be using the same specification paint as used in paint booths PB6 and PB7. This change to the permit is considered a notice-only change pursuant to 326 IAC 2-6.1-6(d)(6), since it incorporates newly applicable requirements as a result of a change in applicability. Pursuant to the provisions of 326 IAC 2-6.1-6, the permit is hereby revised as follows with the deleted language as ~~strikeouts~~ and new language **bolded**.

The addition of the plywood paint operation will not cause the source's potential to emit to be greater than the threshold levels specified in 326 IAC 2-2 or 326 IAC 2-3. This operation is considered a notice-only change pursuant to 326 IAC 2-6.1-6(d)(6).

Pursuant to 326 IAC 2-6.1-6, the permit is hereby revised as follows, with deleted language as ~~strikeouts~~ and new language **bolded**:

Sections A.2 and D.1 have been revised to add the flat plywood paint operation in existing booths PB-6 and PB-7 using Roller coating operation. The new emission limitations and standard conditions pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating) are included as follows:

- (i) One (1) Flat Line Conveyor Process Line:
 - (1) One (1) Primer Booth, identified as PB-6, capable of painting a maximum of 410 sq. ft. /hour of parts, equipped with High Volume Low Pressure (HVLP) spray system, using a dry media filter for particulate control, exhausting through stack E24, and constructed in April, 2002. **The Primer booth, PB-6 is also approved for modifications in 2009, to coat a maximum of twenty (20) flat plywood boards 48"X48" per day, equipped with roller coating.**
 - (2) One (1) Topcoat Booth, identified as PB-7, capable of painting a maximum of 410 sq. ft. /hour of parts, equipped with High Volume Low Pressure (HVLP) spray system, using a dry media filter for particulate control, exhausting through stack E25, and constructed in April, 2002. **The Topcoat booth, PB-7 is also approved for modifications in 2009, to coat a maximum of twenty (20) flat plywood boards 48"X48" per day, equipped with roller coating.**

NOTE: The maximum plywood boards to be coated is twenty (20) for combined booths PB-6 and PB-7. There are no particulate emissions from this process of roller coating because the coated surface type is flat and application method is roller coating. The plywood boards are used for wood furnishings.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (b) One (1) Flat Line Conveyor Process Line:
- (1) One (1) Primer Booth, identified as PB-6, capable of painting a maximum of 410 sq. ft. /hour of parts, equipped with High Volume Low Pressure (HVLP) spray system, using a dry media filter for particulate control, exhausting through stack E24, and constructed in April, 2002. **The Primer booth, PB-6 is also approved for modifications in 2009, to coat a maximum of twenty (20) flat plywood boards 48"X48" per day, equipped with roller coating.**
 - (2) One (1) Topcoat Booth, identified as PB-7, capable of painting a maximum of 410 sq. ft. /hour of parts, equipped with High Volume Low Pressure (HVLP) spray system, using a dry media filter for particulate control, exhausting through stack E25, and constructed in April, 2002. **The Topcoat booth, PB-7 is also approved for modifications in 2009, to coat a maximum of twenty (20) flat plywood boards 48"X48" per day, equipped with roller coating.**

NOTE: The maximum plywood boards to be coated is twenty (20) for combined booths PB-6 and PB-7. There are no particulate emissions from this process of roller coating because the coated surface type is flat and application method is roller coating. The plywood boards are used for wood furnishings.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

...

D.1.2 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the Permittee shall perform surface coating (PB-06 and PB-07) of wood furniture and cabinets, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, using one (1) or more of the following application systems:

- 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. Since each of the surface coating booths uses Roller coating, it can comply with 326 IAC 8-2-12.

326 IAC 8-2-10 (Flat wood panels; manufacturing operations)

Pursuant to 326 IAC 8-2-10 (Flat wood panels; manufacturing operations) this source is not subject to this rule, because the plywood coated is not printed, the grain is not enhanced by transparent finishes, these panels are not made of inter-felted ligno-cellulosic fibers.

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

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating) this source is subject to this rule, because the surface coating booths PB6 and PB7 each are a facility of the type described in 326 IAC 8-2-12, have actual emissions of more than fifteen (15) pounds of VOC per day before add-on controls. This rule applies to surface coating of wood furnishings, including cabinets (kitchen, bath, and vanity), tables, beds, chairs, sofas (nonupholstered), art objects, and any other coated furnishings made of solid wood, wood composition, or simulated wood material. The surface coating booths PB6 and PB7 are each subject to 326 IAC 8-2-12, since they each are a facility of the type described in 326 IAC 8-2-12, the source to be constructed after July 1, 1990, and emission units PB6, and PB7 will have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls.

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

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

IDEM has also included the following updates to the Revised MSOP:

IDEM's Branches and Sections have been renamed. All occurrences to Permit Administration and Development Section and the Permits Branch have been revised to Permit Administration and Support Section, and all occurrences to Asbestos Section, Compliance Data Section, Air Compliance Section, and Compliance Branch have been changed to Compliance and Enforcement Branch as follows:

~~Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251~~

**Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251**

~~Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue,
Indianapolis, IN 46204-2251~~

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

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

Indiana Department of Environmental Management

**Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251**

.....
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION
.....

All other conditions of the permit shall remain unchanged and in effect. Please find the enclosed copy of the revised entire permit for Prince Manufacturing.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Swarna Prabha, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-234-5376 or at 1-800-451-6027 (ext 45376).

Sincerely:



Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Updated Permit and Appendix A - Emission calculation

IC/sp

cc: File - Noble County
Noble County Health Department
U.S. EPA, Region V
Air Compliance Section
IDEM Northern Regional Office
Compliance Data Section
Technical Support and Modeling
Permits Administrative and Development
Billing, Licensing and Training Section



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
MC61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027

Minor Source Operating Permit Renewal OFFICE OF AIR QUALITY

**Prince Manufacturing, Inc.
205 Green Drive
Avilla, Indiana 46710**

(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 to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

Operation Permit No.: M113-23749-00032	
Original signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: February 23, 2007 Expiration Date: February 23, 2017

First Notice-Only Change NO.: 113-26188-00032, issued on March 14, 2008

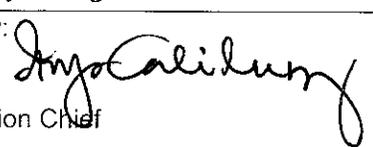
Second Notice-Only Change No. 113-27497-00032	
Original Signed By:  Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: March 4, 2009 Expiration Date: February 23, 2017

TABLE OF CONTENTS

A. SOURCE SUMMARY	4
A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]	
A.2 Emission Units and Pollution Control Equipment Summary	
B. GENERAL CONDITIONS	6
B.1 Definitions [326 IAC 2-1.1-1]	
B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]	
B.3 Term of Conditions [326 IAC 2-1.1-9.5]	
B.4 Enforceability	
B.5 Severability	
B.6 Property Rights or Exclusive Privilege	
B.7 Duty to Provide Information	
B.8 Certification	
B.9 Annual Notification [326 IAC 2-6.1-5(a)(5)]	
B.10 Preventive Maintenance Plan [326 IAC 1-6-3]	
B.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]	
B.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]	
B.13 Permit Renewal [326 IAC 2-6.1-7]	
B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]	
B.15 Source Modification Requirement	
B.16 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2] [IC 13-17-3-2][IC 13-30-3-1]	
B.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]	
B.18 Annual Fee Payment [326 IAC 2-1.1-7]	
B.19 Credible Evidence [326 IAC 1-1-6]	
C. SOURCE OPERATION CONDITIONS	11
Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]	
C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]	
C.2 Permit Revocation [326 IAC 2-1.1-9]	
C.3 Opacity [326 IAC 5-1]	
C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]	
C.6 Fugitive Dust Emissions [326 IAC 6-4]	
C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]	
Testing Requirements [326 IAC 2-6.1-5(a)(2)]	
C.8 Performance Testing [326 IAC 3-6]	
Compliance Requirements [326 IAC 2-1.1-11]	
C.9 Compliance Requirements [326 IAC 2-1.1-11]	
Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]	
C.10 Compliance Monitoring [326 IAC 2-1.1-11]	
C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]	
C.12 Instrument Specifications [326 IAC 2-1.1-11]	
Corrective Actions and Response Steps	
C.13 Actions Related to Noncompliance Demonstrated by a Stack Test	

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

- C.14 Malfunctions Report [326 IAC 1-6-2]
- C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]
- C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2]
[IC 13-14-1-13]

D.1. EMISSIONS UNIT OPERATION CONDITIONS- Spray Booths 17

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

- D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]
- D.1.2 Wood Furniture and Cabinet Coating [326 IAC 8-2-12]

- D.1.3 Particulate [326 IAC 6-3-2(d)]
- D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

Compliance Determination Requirements

- D.1.5 Volatile Organic Compounds

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

- D.1.6 Particulate Control (PM)
- D.1.7 Monitoring

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

- D.1.8 Record Keeping Requirement

Annual Notification 21
Malfunction Report 22
Minor Source Operating Permit (MSOP) Certification.....24

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary surface coating operation for military vehicle components.

Source Address:	205 Green Drive, Avilla, Indiana 46710
Mailing Address:	205 Green Drive, Avilla, Indiana 46710
General Source Phone Number:	260-897-2200
SIC Code:	3479
County Location:	Noble
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) One (1) natural gas-fired air make-up unit, identified as CU 1 with a heat input capacity of 6.5 million British thermal units per hour (mmBtu/hr) exhausting through Stack E1 and constructed in March, 1992.
- (b) One (1) natural gas-fired Phosphate Line Cleaner Tank Heater, identified as CU 2 with a heat input capacity of 2.5 mmBtu/hr exhausting through Stack E3 and constructed in March, 1992.
- (c) One (1) natural gas-fired Phosphate Line Phosphate Tank Heater, identified as CU 3 with a heat input capacity of 2.5 mmBtu/hr exhausting through Stack E4 and constructed in March, 1992.
- (d) One (1) natural gas-fired Phosphate Line Dry/Bake Oven, identified as CU 4 with a heat input capacity of 3.8 mmBtu/hr exhausting through stack E7 and constructed in March, 1992.
- (e) One (1) natural gas-fired Heat Furnace, identified as CU 5 with a heat input capacity of 0.08 mmBtu/hr.
- (f) One (1) natural gas-fired air make-up unit, identified as CU 9, with a heat input capacity of 3.96 mmBtu/hr exhausting through stack E29 and constructed in April, 2002.
- (g) One (1) natural gas-fired air make-up unit/heater, identified as CU 10 with a heat input capacity of 500,000 Btu/hr and constructed in May, 2002.

- (h) One (1) Overhead Process Line consisting of:
- (1) One (1) Paint Primer Booth, identified as PB-1, capable of painting a maximum of 45 Humvee Hoods per Day (hoods/day), or 417 Square feet per hour (sq.ft./hour) equipped with High Volume Low Pressure (HVLV) spray system, using a dry media filter for particulate control, exhausting through stack E8, and constructed in March, 1992.
 - (2) Two (2) Topcoat Booths 1 and 2, identified as PB-2 and PB-3, capable of painting a maximum of 45 Humvee Hoods per Day (hoods/day), or a total maximum of 1760 sq. ft./hour of primed parts, or 818 sq.ft. /hour of primerless parts, equipped with High Volume Low Pressure (HVLV) spray systems, using a dry media filter for particulate control, exhausting through stacks E9 and E10 respectively, and constructed in March, 1992.
 - (3) One (1) Paint Primer Booth, identified as PB-5, capable of painting a maximum of 417 square feet per hour of parts, equipped with High Volume Low Pressure (HVLV) spray system, using a dry media filter for particulate control, exhausting through stack E23, and constructed in April, 2002.
- (i) One (1) Flat Line Conveyor Process Line:
- (1) One (1) Primer Booth, identified as PB-6, capable of painting a maximum of 410 sq. ft. /hour of parts, equipped with High Volume Low Pressure (HVLV) spray system, using a dry media filter for particulate control, exhausting through stack E24, and constructed in April, 2002. The Primer booth, PB-6 is also approved for modifications in 2009, to coat a maximum of twenty (20) flat plywood boards 48"X48" per day, equipped with roller coating.
 - (2) One (1) Topcoat Booth, identified as PB-7, capable of painting a maximum of 410 sq. ft. /hour of parts, equipped with High Volume Low Pressure (HVLV) spray system, using a dry media filter for particulate control, exhausting through stack E25, and constructed in April, 2002. The Topcoat booth, PB-7 is also approved for modifications in 2009, to coat a maximum of twenty (20) flat plywood boards 48"X48" per day, equipped with roller coating.

NOTE: The maximum plywood boards to be coated is twenty (20) for combined booths PB-6 and PB-7. There are no particulate emissions from this process of roller coating because the coated surface type is flat and application method is roller coating. The plywood boards are used for wood furnishings.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

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

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

- (a) This permit, M113-23749-00032, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification

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

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

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

- (a) All terms and conditions of permits established prior to M113-23749-00032 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted
- (b) All previous registrations and permits are superseded by this permit.

B.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least ninety (90) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
 - (1) Submitted at least ninety (90) days prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6 (d)]

B.15 Source Modification Requirement

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

B.16 Inspection and Entry

[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

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

B.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.18 Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.

- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.19 Credible Evidence [326 IAC 1-1-6]

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

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

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

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

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

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3 (2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3 (3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

(e) Procedures for Asbestos Emission Control

The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1 (a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

C.8 Performance Testing [326 IAC 3-6]

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

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4 (b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

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

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C.12 Instrument Specifications [326 IAC 2-1.1-11]

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

Corrective Actions and Response Steps

C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

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

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

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

C.14 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

- (e) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C - General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) Overhead Process Line consisting of:
- (1) One (1) Paint Primer Booth, identified as PB-1, capable of painting a maximum of 45 Humvee Hoods per Day (hoods/day), or 417 Square feet per hour (sq.ft./hour) equipped with High Volume Low Pressure (HVLP) spray system, using a dry media filter for particulate control, exhausting through stack E8, and constructed in March, 1992
 - (2) Two (2) Topcoat Booths 1 and 2, identified as PB-2 and PB-3, capable of painting a maximum of 45 Humvee Hoods per Day (hoods/day), or a total maximum of 1760 sq. ft./hour of primed parts, or 818 sq.ft. /hour of primerless parts, equipped with High Volume Low Pressure (HVLP) spray systems, using a dry media filter for particulate control, exhausting through stacks E9 and E10 respectively, and constructed in March, 1992.
 - (3) One (1) Paint Primer Booth, identified as PB-5, capable of painting a maximum of 417 square feet per hour of parts, equipped with High Volume Low Pressure (HVLP) spray system, using a dry media filter for particulate control, exhausting through stack E23, and constructed in April, 2002.
- (b) One (1) Flat Line Conveyor Process Line:
- (1) One (1) Primer Booth, identified as PB-6, capable of painting a maximum of 410 sq. ft. /hour of parts, equipped with High Volume Low Pressure (HVLP) spray system, using a dry media filter for particulate control, exhausting through stack E24, and constructed in April, 2002. The Primer booth, PB-6 is also approved for modifications in 2009, to coat a maximum of twenty (20) flat plywood boards 48"X48" per day, equipped with roller coating.
 - (2) One (1) Topcoat Booth, identified as PB-7, capable of painting a maximum of 410 sq. ft. /hour of parts, equipped with High Volume Low Pressure (HVLP) spray system, using a dry media filter for particulate control, exhausting through stack E25, and constructed in April, 2002. The Topcoat booth, PB-7 is also approved for modifications in 2009, to coat a maximum of twenty (20) flat plywood boards 48"X48" per day, equipped with roller coating.

NOTE: The maximum plywood boards to be coated is twenty (20) for combined booths PB-6 and PB-7. There are no particulate emissions from this process of roller coating because the coated surface type is flat and application method is roller coating. The plywood boards are used for wood furnishings.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic

compound (VOC) content of the coating delivered to the applicator at the spray booth when coating metal shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings.

- (b) Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.1.2 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the Permittee shall perform surface coating (PB-06 and PB-07) of wood furniture and cabinets, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, using one (1) or more of the following application systems:

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

- (a) Particulate from the surface coating in PB-1, PB-2, PB-3, PB-5, PB-6, and PB-7 shall be controlled by a dry particulate filter and the Permittee shall operate the control devices in accordance with manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:
 - (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground; or
 - (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control devices, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

D.1.4. Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for the Overhead Line: Primer Booths, identified as PB-1 and PB-5, Topcoat Booths identified as PB-2, and PB-3; Flat Line Booths identified as PB-6 and PB-7; and each control device.

Compliance Determination Requirements

D.1.5 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.1(a) 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.

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

D.1.6 Particulate Control (PM)

The dry filters shall be in place at all times the Overhead Line: Primer Booths, identified as PB-1 and PB-5, Topcoat Booths identified as PB-2, and PB-3; Flat Line Booths identified as PB-6 and PB-7, are in operation.

D.1.7 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters for the Overhead Line: Primer Booths, identified as PB-1 and PB-5, Topcoat Booths identified as PB-2, and PB-3; Flat Line Booths identified as PB-6 and PB-7. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (E8, E9, E10, E23, E24 and E25) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.1.8 Record Keeping Requirement

- (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 as stated below 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. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The VOC content of each coating material and solvent used.
- (2) The amount of coating material and solvent less water used on monthly basis.
- (A) Records shall include purchase orders, invoices, usage logs or other reasonable methods and material safety data sheets (MSDS), VOC data sheets, certificate of analysis or other means necessary to verify the type and amount used.

- (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
 - (3) The monthly cleanup solvent usage;
 - (4) The total VOC usage for each month;
 - (5) The weight of VOC emitted for each compliance period.
- b) To document compliance with Condition D.1.6 the Permittee shall maintain records in accordance with the paragraph below. Records shall be taken as stated below and shall be complete and sufficient to establish compliance with the monitoring requirements in Condition D.1.6. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

The Permittee shall maintain a log of daily inspections of fabric filter placement, integrity and particle loading for spray coating booths PB-1, PB-2, PB-3, PB-5, PB-6, and PB-7; weekly observations of over-spray from the spray coating booths PB-1, PB-2, PB-3, PB-5, PB-6, and PB-7 stacks; and monthly inspections of coating emissions from the spray coating booths PB-1, PB-2, PB-3, PB-5, PB-6, and PB-7 stacks.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH**

**MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5 (a) (5).

Company Name:	Prince Manufacturing, Inc.
Address:	205 Green Drive
City:	Avilla, Indiana 46710
Phone #:	260-897-2200
MSOP #:	M113-23749-00032

I hereby certify that Prince Manufacturing, Inc. is :

still in operation.

no longer in operation.

I hereby certify that Prince Manufacturing, Inc. is :

in compliance with the requirements of MSOP M113-23749-00032.

not in compliance with the requirements of MSOP M113-23749-00032.

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

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

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY FAX NUMBER - 317 233-6865

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

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

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

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

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

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

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

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

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

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____

INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

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

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

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

326 IAC 1-6-1 Applicability of rule

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

326 IAC 1-2-39 "Malfunction" definition

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

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

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

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**MINOR SOURCE OPERATING PERMIT (MSOP)
CERTIFICATION**

Source Name: Prince Manufacturing
Source Address: 205 Green Drive, Avilla, Indiana 46710
Mailing Address: Steve Pitman 205 Green Drive, Avilla, IN 46710
MSOP No.: M113-23749-00032

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- Annual Compliance Notification
- Test Result (specify) _____
- Report (specify) _____
- Notification (specify) _____
- Affidavit (specify) _____
- Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

Company Name: Prince Manufacturing, Inc.
Address City IN Zip: 205 Green Drive, Avilla, Indiana 46710
MSOP No.: M113-23749-00032
Notice-Only Change No.: M 113-27497-00032
Reviewer: Swarna Prabha

Uncontrolled Potential Emissions (tons/year)						
Emissions Generating Activity						
Category	Pollutant	Natural gas Combustion CU1, CU2, CU3, CU4, CU5, CU9, CU10	Surface Coating PB-1, PB-2, PB-3, PB-5, PB-6, PB-7	* Flat plywood coating Booths PB-6, PB-7	Existing Emissions	Source-Wide Emissions TOTAL
Criteria	PM	0.17	50.80	0.00	50.97	50.97
Pollutants	PM10	0.66	50.80	0.00	51.46	51.46
	SO2	0.05			0.05	0.05
	NOx	8.69			8.69	8.69
	VOC	0.48	75.14	1.91	75.62	77.53
	CO	7.30			7.30	7.30
Hazardous Air Pollutant	n-Hexane	1.6E-01			0.16	0.16
	Chromium	1.22E-04			1.2E-04	1.2E-04
	Xylene		1.88	6.8E-02	1.88	1.95
	Nickel	1.82E-04			1.8E-04	1.8E-04
	Toluene	2.95E-04	7.51		7.5	7.5
	Glycol Ethers		0.39	6.8E-02	3.9E-01	4.6E-01
	Ethyle Benzene		0.30	1.3E-02	3.1E-01	3.1E-01
	Formaldehyde	6.5E-03			6.5E-03	6.5E-03
	Methyle Isobutyle Ketone		6.84		6.8	6.8
	Hexamethylene Diisocyanate		0.06		0.06	0.06
	2,4 Toluene Diisocyanate		0.41		0.41	0.41
	Cadmium	9.56E-05			9.6E-05	9.6E-05
	Totals	1.6E-01	7.31	8.2E-02	17.57	17.71

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

Controlled Potential Emissions (tons/year)						
Emissions Generating Activity						
Category	Pollutant	Natural gas Combustion CU1, CU2, CU3, CU4, CU5, CU9, CU10	Surface coating PB-1, PB-2, PB-3, PB-5, PB-6, PB-7	*Flat plywood coating Booths PB-6, PB-7*	Existing Emissions	Source-Wide Emissions TOTAL
Criteria	PM	0.17	50.80	0.00	50.97	50.97
Pollutants	PM10	0.66	50.80	0.00	51.46	51.46
	SO2	0.05			0.05	0.05
	NOx	8.69			8.69	8.69
	VOC	0.48	75.14	1.91	75.62	77.53
	CO	7.30			7.30	7.30
Hazardous Air Pollutants	n-Hexane	1.6E-01			0.16	0.16
	Chromium	1.22E-04			1.2E-04	1.2E-04
	Xylene		1.88	6.8E-02	1.88	1.95
	Nickel	1.82E-04			1.8E-04	1.8E-04
	Toluene	2.95E-04	7.51		7.5	7.5
	Glycol Ethers		0.39	6.8E-02	3.9E-01	4.6E-01
	Ethyle Benzene		0.30	1.3E-02	3.0E-01	3.1E-01
	Formaldehyde	6.5E-03			6.5E-03	6.5E-03
	Methyle Isobutyle Ketone		6.84		6.84	6.84
	Hexamethylene Diisocyanate		0.06		0.06	0.06
	2,4 Toluene Diisocyanate		0.41		0.41	0.41
	Cadmium	9.56E-05			9.6E-05	9.6E-05
	Totals	1.6E-01	7.31	8.2E-02	17.6	17.71

There are no emission factors in AP42 for PM2.5, PM10 = PM2.5

* Notice-Only Change # 27497, Flat Plywood coating operation- Appendix A: Page 4 of 7

1. On May 8, 2008 U. S. EPA promulgated the new requirements for Prevention Of Significant Deterioration (PSD) for PM 2.5 emissions, and the effective date of these rules was July 15th, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC2-2, to include those requirements. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 Emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5

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

**Natural Gas Fired Boilers and Furnaces
Company Name: Prince Manufacturing, Inc.
Plant Location: 205 Green Drive, Avilla, Indiana 46710
MSOP: M113-23749-00032
Notice-Only Change No.: M 113-27497-00032
Permit Reviewer: Swarna Prabha**

units	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)
CU 1	6.50	56.94
CU 2	2.50	21.90
CU 3	2.50	21.90
CU 4	3.80	33.29
CU 5	0.08	0.70
CU 9	3.96	34.69
CU 10	0.50	4.38

Emission Factor in lb/MMCF		Pollutant					
		PM*	PM10*	SO2	NOx**	VOC	CO
		1.90	7.60	0.60	100.00	5.50	84.00
Potential Emissions (tons/year)	CU 1	0.05	0.22	0.02	2.85	0.16	2.39
	CU 2	0.02	0.08	0.01	1.10	0.06	0.92
	CU 3	0.02	0.08	0.01	1.10	0.06	0.92
	CU 4	0.03	0.13	0.01	1.66	0.09	1.40
	CU 5	0.00	0.00	0.00	0.04	0.00	0.03
	CU 9	0.03	0.13	0.01	1.73	0.10	1.46
	CU 10	0.00	0.02	0.00	0.22	0.01	0.18
Total (tons/year)		0.17	0.66	0.05	8.69	0.48	7.30

Pollutant	Benzene	Formaldehyde	Hexane	Toluene	Cd	Cr	Ni
		0.00	0.08	1.80	0.00	0.00	0.00

Units	Potential Emission						
	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
	Benzene	Formaldehyde	Hexane	Toluene	Cd	Cr	Ni
CU 1	5.98E-05	2.14E-03	5.12E-02	9.68E-05	3.13E-05	3.99E-05	5.98E-05
CU 2	2.30E-05	8.21E-04	1.97E-02	3.72E-05	1.20E-05	1.53E-05	2.30E-05
CU 3	2.30E-05	8.21E-04	1.97E-02	3.72E-05	1.20E-05	1.53E-05	2.30E-05
CU 4	3.50E-05	1.25E-03	3.00E-02	5.66E-05	1.83E-05	2.33E-05	3.50E-05
CU 5	7.36E-07	2.63E-05	6.31E-04	1.19E-06	3.85E-07	4.91E-07	7.36E-07
CU 9	3.64E-05	1.30E-03	3.12E-02	5.90E-05	1.91E-05	2.43E-05	3.64E-05
CU 10	4.60E-06	1.64E-04	3.94E-03	7.45E-06	2.41E-06	3.07E-06	4.60E-06
Total	1.82E-04	6.52E-03	1.56E-01	2.95E-04	9.56E-05	1.22E-04	1.82E-04

There are no PM2.5 Emission Factors in AP-42, PM10 = PM2.5

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

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

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

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

**Company Name: Prince Manufacturing, Inc.
Address City IN Zip: 205 Green Drive, Avilla, Indiana 46710
Permit Number: M 113-23749-00032
Notice-Only Change No.: M 113-27497-00032
Reviewer: Swarna Prabha**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/sq.ft.)	Maximum (sq.ft./hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Overhead Process Line																
Paint Booth PB-1	10.1	38.90%	0.0%	38.9%	0.0%	50.01%	0.00125	417.000	3.45	3.94	2.05	49.29	8.99	4.71*	7.88	70%
Paint Booth PB-2	10.1	38.90%	0.0%	38.9%	0.0%	50.01%	0.00125	880.000	3.45	3.94	4.33	104.01	18.98	9.94*	7.88	70%
Paint Booth PB-3	10.1	38.90%	0.0%	38.9%	0.0%	50.01%	0.00125	880.000	3.45	3.94	4.33	104.01	18.98	12.29*	7.88	70%
Paint Booth PB-5	12.0	27.78%	0.0%	27.8%	0.0%	52.00%	0.00090	417.000	3.33	3.33	1.25	30.03	5.48	4.27	6.41	70%
Flat Line Conveyor Process Line																
Paint Booth PB--6	12.5	22.60%	0.0%	22.6%	0.0%	59.80%	0.00200	410.000	2.83	2.83	2.32	55.60	10.15	10.42	4.72	70%
Paint Booth PB-7	12.0	29.14%	0.0%	29.1%	0.0%	50.20%	0.00200	410.000	3.50	3.50	2.87	68.82	12.56	9.16	6.97	70%
Potential Emissions											17.16	411.74	75.14	50.80		
Using worst case coating in each column.																

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

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

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

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

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

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

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

Total = Worst Coating + Sum of all solvents used

* Note: The Source uses several different coatings in each paint booth. The Particulate Potential for paint booths PB-1, PB-2, and PB-3 are based on a different coating than the Potential VOC's.

Appendix A: Emission Calculations
VOC and HAPs Emissions from flat wood Surface Coating Operations

Company Name: Prince Manufacturing
Address: 205 Green Drive, Avilla, Indiana 46710
MSOP No. : M 113-23749-00032
Notice-Only Change No.: M 113-27497-00032
Reviewer: Swarna Prabha

Spray Booths (PB-6, PB-7)-Flat Wood surface Coating Only

Material -flat plywood	Density (lbs/gal)	Weight % Water	Weight % VOC	Weight % Solids	Maximum Capacity (unit/hr)	Maximum Capacity* (gal/unit)	Maximum Usage (gals/hour)	VOC (lbs/gal)	PTE of VOC (lbs/hour)	PTE of VOC (lbs/day)	Actual Emissions of VOC** (lbs/day)	PTE of VOC (tons/year)
Paint Booth PB-6	12.50	0.0%	22.6%	59.8%	0.83	0.1500	0.125	2.83	0.35	8.48	2.83	1.55
Paint Booth PB-7	12	0.0%	29.14%	50.20%	0.83	0.1500	0.125	3.50	0.44	10.49	3.50	1.91
Worst Case											3.50	1.91

HAPs

Material -flat plywood	Density (lbs/gal)	Maximum Capacity (gal/unit)	Maximum Usage * (gals/hour)	Weight % Toluene	Weight % Xylene	Weight % Glycol Ethers	Weight % Ethylbenzene	PTE of Toulene (tons/yr)	PTE of Xylene (tons/yr)	PTE of Glycol Ethers	PTE of Ethylbenzene (tons/yr)	Total PTE of HAPs (Tons/yr)
Paint Booth PB-6	12.50	0.1500	0.125	0%	1%	1%	0.0%	0.00	6.84E-02	6.84E-02	0	6.84E-02
Paint Booth PB-7	12	0.1500	0.125	0%	1%	0%	0.2%	0.00	6.57E-02	0.00E+00	1.3.E-02	7.88E-02
Worst case PTE Of HAPs								0.000	0.068	0.068	0.013	0.079

NOTE: Flat plywood boards are hand rolled painted in booths PB- 6 and PB- 7, there are no particulate emissions from this process, only 20 wood boards are coated per week combined booths, PB-6 and PB-7.

Each plywood panel is 48" X 48" = 16 sq feet, Maximum parts coated per day =20 panels or 7,300 panels per year combined booths

**Anticipated actual hours of operation assumed based on 20 panels per week = 480 hrs, i.e., 8 hours per day, 5 days per month, and 12 months per year
 The highlighted boxes represent the worst case HAP material used in each paint booth.

Methodology

VOC (lbs/gal) = Density (lbs/gal) x Weight % VOC (%)

PTE of PM/PM10 Before Controls (tons/year) = Density (lbs/gal) x Weight % Solids x Maximum Usage (gals/hour) x 8760 (hours/year) x 1 ton/2000 lbs x (1 - Transfer Efficiency %)

HAPS emission rate (tons/yr) = [Maximum Usage (lb/hr)] * [Weight % HAP] * [8760 hours/yr] * [1 ton/2000 lbs]

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

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

PTE of VOC (lbs/hr) = [Maximum Usage (lbs/hr)] * [Weight % VOCs]

PTE of VOC (lbs/day) = [PTE of VOC (lbs/hr)] * [24 hours/day]

PTE of VOC (tons/yr) = [PTE of VOC (lbs/day)] * [(365 days/yr)] * [1 ton/2000 lbs]

PTE of PM/PM10 (tons/yr) = [Density (lbs/gal)] * [Maximum Usage (gal/day)] * [(Weight % Solids)] * [1 - Transfer efficiency]] * [365 days/yr] * [1 ton/2000 lbs]

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

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

**Company Name: Prince Manufacturing, Inc.
Address City IN Zip: 205 Green Drive, Avilla, Indiana 46710
Permit Number: M113-23749-00032
Notice-Only Change No.: 113-27497-00032
Reviewer: Swarna Prabha**

Appendix A: Page 5 of 7

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non Volatiles (solids)	Gal of Material per Hood (gal/hood,*	Maximum Hoods per Day (hoods/day)	Pounds VOC per gallon of coating as used	Pounds VOC per gallon of coating	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Overhead Process Line															
Paint Booth PB-1	10.57	43.50%	0.0%	43.5%	0.0%	52.30%	0.11100	45.000	4.598	4.598	22.97	4.19	1.51	8.79	70%
Paint Booth PB-2	10.57	43.50%	0.0%	43.5%	0.0%	52.30%	0.11100	45.000	4.598	4.598	22.97	4.19	1.51	8.79	70%
Potential Emissions			Worst case coating added to all solvents								45.93	8.38	3.02		

METHODOLOGY

*The source has chosen to calculate the PTE in the number of hood per day that was coated

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 Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/hood) * Maximum (hoods/day)

Potential VOC Tons per Year = Potential VOC Pounds per Day * (365 days/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year =Density(Lb/Gal)*Volume % Non- Volatiles(solids)*Gallons of Material per Hood(Gal/Hood)*Maximum Hoods per Day (hoods/day)

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

Paint as used is 4:1 Paint to Catalyst Density(Lb/Gal)= (Density of paint x 4)+Density of Catalyst/5 ((10.82Lb/Gal*4)+9.57Lb/Gal)/5=10.57Lb/Gal

VOC Lb/Gal as used VOC(Lb/Gal)=(VOC in Lb/Gal of paint X 4)+ VOC of Catalyst in Lb/Gal/5 ((4.79Lb/Gal x 4) + 3.83 Lb/Gal)/5=4.598 Lb/Gal VOC's

Weight % Volatile= (VOC Lb/Gal of coating as used/Density Lb/Gal) x 100= % 4.598(Lb VOC/Gal)/10.57 LB/Gal= 0.435 x 100= 43.50%

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

**Company Name: Prince Manufacturing, Inc.
Address City IN Zip: 205 Green Drive, Avilla, Indiana 46710
Permit Number: M 113-23749-00032
Notice-Only Change No.: 113-27497-00032
Reviewer: Swarna Prabha**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/sq.ft.)	Maximum (sq.ft./hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Overhead Process Line																
E90H226/V93V227PB-5	12.0	27.78%	0.0%	27.8%	0.0%	52.00%	0.00090	417.000	3.33	3.33	1.25	30.03	5.48	4.27	6.41	70%
F93G27/V93V20PB-3	12.0	29.14%	0.0%	29.1%	0.0%	50.20%	0.00125	880.000	3.50	3.50	3.85	92.32	16.85	12.29	6.97	70%
08609TUZ-GD PB-3	10.1	38.90%	0.0%	38.9%	0.0%	50.01%	0.00125	880.000	3.45	3.94	4.33	104.01	18.98	8.94	7.88	70%
08605GUZ-GD PB-3	10.4	33.72%	0.0%	33.7%	0.0%	48.42%	0.00125	880.000	3.50	3.50	3.85	92.33	16.85	9.94	7.22	70%
08610KUZ-GDPB-3	10.0	34.99%	0.0%	35.0%	0.0%	48.38%	0.00125	880.000	3.50	3.50	3.85	92.34	16.85	9.39	7.23	70%
08609TUZ-GD PB-2	10.1	38.90%	0.0%	38.9%	0.0%	50.01%	0.00125	880.000	3.45	3.94	4.33	104.01	18.98	8.94	7.88	70%
08605GUZ-GD PB-2	10.4	33.72%	0.0%	33.7%	0.0%	48.42%	0.00125	880.000	3.50	3.50	3.85	92.33	16.85	9.94	7.22	70%
08610KUZ-GDPB-2	10.0	34.99%	0.0%	35.0%	0.0%	48.38%	0.00125	880.000	3.50	3.50	3.85	92.34	16.85	9.39	7.23	70%
08609TUZ-GD PB-1	10.1	38.90%	0.0%	38.9%	0.0%	50.01%	0.00125	417.000	3.45	3.94	2.05	49.29	8.99	4.24	7.88	70%
08605GUZ-GD PB-1	10.4	33.72%	0.0%	33.7%	0.0%	48.42%	0.00125	417.000	3.50	3.50	1.82	43.75	7.98	4.71	7.22	70%
08610KUZ-GDPB-1	10.0	34.99%	0.0%	35.0%	0.0%	48.38%	0.00125	417.000	3.50	3.50	1.82	43.76	7.99	4.45	7.23	70%
Flat Line Conveyor Process Line																
N-3508A & B PB--6	12.5	22.60%	0.0%	22.6%	0.0%	59.80%	0.00200	410.000	2.83	2.83	2.32	55.60	10.15	10.42	4.72	70%
E67BC32/V66V27 PB-7	12.0	29.14%	0.0%	29.1%	0.0%	50.20%	0.00200	410.000	3.50	3.50	2.87	68.82	12.56	9.16	6.97	70%
Potential Emissions Worst case coating added to all solvents											40.04	411.74	75.14	50.80		

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: Prince Manufacturing, Inc
Address City IN Zip: 205 Green Drive, Avilla, Indiana 46710
Permit Number: M113-23749-00032
Notice-Only Change No.: M113-27497-00032
Permit Reviewer: Swarna Prabha

Material	Density	Gallons of Material	Maximum	Weight %	Weight %	Weight %	Weight %	Weight %	Weight %	Weight %	Xylene Emissions	Toluene Emissions	Ethylbenzene Emissions	Methyl Isobutyl Ketone Emissions	Glycol Ethers Emissions	2,4-Toluene Diisocyanate Emissions	Hexamethylene Diisocyanate Emissions
	(Lb/Gal)	(gal/unit)	(unit/hour)	Xylene	Toluene	Ethylbenzene	Methyl Isobutyl Ketone	Glycol Ethers	2,4-Toluene Diisocyanate	Hexamethylene Diisocyanate	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(tons/yr)
PB-5																	
Primer (E90H226)	13.29	0.007200	417.00	0.00%	4.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	6.99	0.00	0.00	0.00	0.00	0.00
Hardner (V93V227)	7.52	0.000180	417.00	0.00%	21.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00	0.52	0.00	0.02	0.00	0.00	0.00
PB-3																	
TopCoat (F93G27)	12.8	0.001000	880.00	1.00%	0.00%	0.20%	0.00%	0.00%	0.00%	0.00%	0.49	0.00	0.10	0.00	0.00	0.00	0.02
Hardner (V93V20)	8.84	0.000250	880.00	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.09	0.00
08609TUZ-GD	10.1	0.00125	880.00	0.00%	0.00%	0.00%	3.36%	0.00%	0.00%	0.00%	0.00	0.00	0.00	1.64	0.00	0.02	0.00
08605GUAZ-GD	10.4	0.00125	880.00	0.00%	0.00%	0.00%	4.88%	0.00%	0.00%	0.05%	0.00	0.00	0.00	2.44	0.00	0.02	0.00
08610KUAZ-GD	10.0	0.00125	880.00	0.00%	0.00%	0.00%	4.95%	0.00%	0.00%	0.05%	0.00	0.00	0.00	2.38	0.00	0.02	0.00
PB-6																	
Primer (N3580A)	13.6	0.001600	410.00	1.00%	0.00%	0.00%	2.00%	1.00%	0.00%	0.00%	0.39	0.00	0.00	0.78	0.39	0.00	0.01
Primer (N3580B)	7.9	0.000400	410.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PB-7																	
TopCoat (F93G27)	12.8	0.001600	410.00	1.00%	0.00%	0.20%	0.00%	0.00%	0.00%	0.00%	0.37	0.00	0.07	0.00	0.00	0.00	0.01
TopCoat (F93V20)	8.8	0.000400	410.00	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PB-1																	
Primer (E67BC32)	10.82	0.088800	1.875	4.00%	0.00%	0.80%	0.00%	0.00%	0.00%	0.00%	0.32	0.00	0.06	0.00	0.00	0.00	0.01
Catalyst (V66V27)	3.83	0.022200	1.875	0.00%	0.30%	0.00%	0.00%	0.00%	0.30%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08609TUZ-GD	10.1	0.00125	417.00	0.00%	0.00%	0.00%	3.36%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.78	0.00	0.01	0.00
08605GUAZ-GD	10.4	0.00125	417.00	0.00%	0.00%	0.00%	4.88%	0.00%	0.00%	0.05%	0.00	0.00	0.00	1.16	0.00	0.01	0.00
08610KUAZ-GD	10.0	0.00125	417.00	0.00%	0.00%	0.00%	4.95%	0.00%	0.00%	0.46%	0.00	0.00	0.00	1.13	0.00	0.10	0.00
PB-2																	
Primer (E67BC32)	10.82	0.088800	1.875	4.00%	0.00%	0.80%	0.00%	0.00%	0.00%	0.00%	0.32	0.00	0.06	0.00	0.00	0.00	0.01
Catalyst (V66V27)	3.83	0.022200	1.875	0.00%	0.30%	0.00%	0.00%	0.00%	0.30%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08609TUZ-GD	10.1	0.00125	880.00	0.00%	0.00%	0.00%	3.36%	0.00%	0.00%	0.05%	0.00	0.00	0.00	1.64	0.00	0.02	0.00
08605GUAZ-GD	10.4	0.00125	880.00	0.00%	0.00%	0.00%	4.88%	0.00%	0.00%	0.05%	0.00	0.00	0.00	2.44	0.00	0.02	0.00
08610KUAZ-GD	10.0	0.00125	880.00	0.00%	0.00%	0.00%	4.95%	0.00%	0.00%	0.46%	0.00	0.00	0.00	2.38	0.00	0.22	0.00

Total Potential Emissions

1.88 7.51 0.30 6.84 0.39 0.41 0.06

The highlighted boxes represent the worst case HAP material used in each paint booth. This amount was used to calculate the unrestricted potential to emit.

METHODOLOGY

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