

**NOTICE OF 30-DAY PERIOD  
FOR PUBLIC COMMENT**

Proposed Approval of Construction and Operation Permit  
for

**Viking Custom Paint Plant of the Viking Formed  
Products Division of Coachmen Industries, Inc.  
in Elkhart County**

**CP-039-10054, Plt ID-039-00320**

Notice is hereby given that the above company located at 910 Summa Drive in Elkhart, Indiana, 46514, has made application to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a permit to construct and operate a one (1) metal or plastic parts surface coating spray booth and two (2) plastic parts sanding booths. Based on 8,760 hours of operation per year, the volatile organic compound (VOC) allowable emissions are estimated to be 32.14 tons per year.

Notice is hereby given that there will be a period of 30 days from the date of publication of this notice during which any interested person may comment on why this proposed permit should or should not be issued. Appropriate comments should be related to air quality issues, interpretation of the applicable state and federal rules, calculations made, technical issues, or the effect that the operation of this facility would have on any aggrieved individuals. A copy of the application and staff review is available for examination at the **Elkhart Public Library, 300 South 2<sup>nd</sup> Street in Elkhart, Indiana, 46516-3184**. All comments, along with supporting documentation, should be submitted in writing to the IDEM, OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana 46206-6015. If appropriate adverse comments concerning the **air pollution impact** of this proposed source are received, together with a request for a public hearing, such a hearing may be held to give further consideration to this application.

Persons not wishing to comment at this time, but wishing to receive notice of future proceedings conducted related to this action, must submit a written request to the Office of Air Management (OAM), at the above address. All interested parties of record will receive a notice of the decision on this matter and will then have 15 days after receipt of the Notice of Decision to file a petition for administrative review. Procedures for filing such a petition will be enclosed with the Notice.

Questions should be directed to Scott Fulton, OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or at 317/233-5692.

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Management

SDF

**CONSTRUCTION PERMIT  
OFFICE OF AIR MANAGEMENT**

**Viking Custom Paint Plant of the Viking Formed  
Products Division of Coachmen Industries, Inc.  
910 Summa Drive  
Elkhart, IN 46514**

is hereby authorized to construct

- (1) one (1) metal or plastic automobile body parts repair spray booth, identified as REPBOOTH, with PM/PM10 emissions controlled by an exhaust filter system, with all emissions exhausted to Stack 8,
- (2) one (1) fiberglass board sanding booth, identified as SANDBOOTH #1, with PM/PM10 emissions controlled by a cloth filter, with a design grain loading of 0.027 gr/dscf and design air flow rate of 1500 dscfm, with emissions exhausted to Stack 9, and
- (3) one (1) fiberglass board sanding booth, identified as SANDBOOTH #2, with PM/PM10 emissions controlled by a cloth filter, with a design grain loading of 0.027 gr/dscf and design air flow rate of 1500 dscfm, with emissions exhausted to Stack 10.

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-039-10054-00320	
Issued by:  Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

## **Construction Conditions**

### General Construction Conditions

1. That the data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
2. That this permit to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

### Effective Date of the Permit

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

### First Time Operation Permit

6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:
  - (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
  - (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
  - (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
  - (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1-7.1(Fees).

- (e) The Permittee is subject to the requirement of Part 70 permit. The source has submitted their Part 70 application (T-039-7551-00494) on December 21, 1996. The facilities in this application shall be incorporated in the Part 70 permit application.

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

### **Operation Conditions**

#### General Operation Conditions

- 1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
- 2. That the permittee shall comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder.

#### Preventive Maintenance Plan

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

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

#### Transfer of Permit

- 4. That pursuant to 326 IAC 2-1-6 (Transfer of Permits):
  - (a) In the event that ownership of the metal or plastic automobile body parts repair spray booth and fiberglass board sanding booths 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]

8. 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 April 15 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 Data Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30.

Opacity Limitations

9. 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 40% 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.

Particulate Matter Limitations

10. That pursuant to 326 IAC 6-3 (Process Operations):
- (a) the cloth filters for SANDBOOTH #1 and SANDBOOTH #2 shall be in operation at all times when the booths are in operation, and shall not exceed the combined allowable particulate matter (PM) emission rate of 3.3 pounds per hour.
  - (b) Daily inspections shall be performed to verify the placement, integrity and particulate loading of the filters.
  - (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.
11. That pursuant to 326 IAC 6-3 (Process Operations):
- (a) The filters for particulate matter overspray control from spray booth REPBOOTH shall be in operation at all times when the spray booth is in operation.
  - (b) Spray booth REPBOOTH 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, if  
P is equal to or less than 60,000 lbs/hr (30 tons/hr)

- (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

12. That pursuant to 326 IAC 2-1-3(i)(8):
- (a) records of surface coating quantities and organic solvent contents from REPBOOTH, SANDBOOTH #1, and SANDBOOTH #2 shall be maintained, and
  - (b) records of surface coating quantities and organic solvent contents from REPBOOTH shall be maintained demonstrating that the total daily VOC emissions from the coating of metal parts in spray booth REPBOOTH do not exceed 15 pounds per day.

The records under this condition shall be maintained for a minimum period of 36 months and made available upon request of the Office of Air Management (OAM).

Any change or modification which may increase the actual VOC emissions from the coating of metal parts in spray booth REPBOOTH to greater than fifteen (15) pounds per day, increase the potential VOC emissions from the coating of plastic parts in spray booth REPBOOTH to greater than 25 tons per year, or increase the potential VOC emissions from either sanding booth SANDBOOTH #1 or sanding booth SANDBOOTH #2 to greater than twenty-five tons per year, must be approved by the Office of Air Management (OAM) before such change may occur.

**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: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT 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: \_\_\_\_ / \_\_\_\_ / 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, SO<sub>2</sub>, 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: \_\_\_\_\_

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

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

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

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

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. (Air Pollution Control Board; 326 IAC 1-2-39; filed Mar 10, 1988, 1:20 p.m. : 11 IR 2373)

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

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

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## Indiana Department of Environmental Management Office of Air Management

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

#### Source Background and Description

Source Name: Viking Custom Paint Plant of the Viking Formed Products Division of Coachmen Industries, Inc.  
 Source Location: 910 Summa Drive, Elkhart, Indiana 46514  
 County: Elkhart  
 Construction Permit No.: CP-039-10054-00320  
 SIC Code: 3711  
 Permit Reviewer: SDF

The Office of Air Management (OAM) has reviewed an application from Viking Custom Paint Plant of the Viking Formed Products Division of Coachmen Industries, Inc. relating to the construction and operation of the following equipment:

- (1) one (1) metal or plastic automobile body parts repair spray booth, identified as REPBOOTH, with PM/PM10 emissions controlled by an exhaust filter system, with all emissions exhausted to Stack 8,
- (2) one (1) fiberglass board sanding booth, identified as SANDBOOTH #1, with PM/PM10 emissions controlled by a cloth filter, with a design grain loading of 0.027 gr/dscf and design air flow rate of 1500 dscfm, with emissions exhausted to Stack 9, and
- (3) one (1) fiberglass board sanding booth, identified as SANDBOOTH #2, with PM/PM10 emissions controlled by a cloth filter, with a design grain loading of 0.027 gr/dscf and design air flow rate of 1500 dscfm, with emissions exhausted to Stack 10.

#### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
8	spray booth	22	2	4960	70
9	sand booth 1	25	1	1500	70
10	sand booth 2	25	1	1500	70

#### Recommendation

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

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

An application for the purposes of this review was received on August 19, 1998, with additional information received on August 31, 1998.

## Emissions Calculations

See Emissions Calculations for detailed calculations ( 9 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)	14.58	20.46
Particulate Matter (PM10)	14.58	20.46
Sulfur Dioxide (SO <sub>2</sub> )	0	0
Volatile Organic Compounds (VOC)	32.14	32.14
Carbon Monoxide (CO)	0	0
Nitrogen Oxides (NO <sub>x</sub> )	0	0
Single Hazardous Air Pollutant (HAP)	0.79	0.79
Combination of HAPs	2.01	2.01

- (a) Allowable PM emissions from the spray booth are determined from the applicability of rule 326 IAC 6-3. See attached spreadsheets for detailed calculations. Based on the emission calculations, the proposed spray booth PM emissions are limited to 0.03 lb/hr which is equivalent to 0.13 tons PM per year.

The adjusted allowable rate used to determine permit applicability is based on the lesser of the potential and estimated allowable rates. Since the estimated allowable PM rate (0.13 ton/yr) is less than the potential PM rate (0.19 ton/yr), the estimated allowable rate is used to determine permit applicability.

- (b) Allowable PM emissions from the sanding booths are determined from the applicability of rule 326 IAC 6-3. See attached spreadsheets for detailed calculations. Based on the emission calculations, the proposed sanding booths PM emissions are limited to 3.3 lb/hr which is equivalent to 14.45 tons PM per year.

The adjusted allowable rate used to determine permit applicability is based on the lesser of the potential and estimated allowable rates. Since the estimated PM allowable rate (14.45 ton/yr) is less than the potential PM rate (20.27 ton/yr), the estimated allowable rate is used to determine permit applicability.

- (c) Allowable emissions (as defined in the Indiana Rule) of volatile organic compounds (VOC) are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

### County Attainment Status

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

### Source Status

Existing Source PSD Definition (emissions based on calculations from registration issued on January 4, 1985 and completed Y forms for the existing equipment):

Pollutant	Emissions (ton/yr)
PM	2.58
PM10	2.58
SO <sub>2</sub>	0
VOC	59.48
CO	0
NO <sub>x</sub>	0
Single HAP	19.84
Combination HAPs	59.48

This existing source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### 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	3.08	3.08	0.00	32.14	0.00	0.00
PSD or Offset Threshold Level	250	250	250	250	250	250

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

### **Part 70 Permit Determination**

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

This existing source has submitted their Part 70 application (T-039-7551-00494). The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

### **Federal Rule Applicability**

(1) New Source Performance Standards [326 IAC 12 (40 CFR 60)]:

There are no New Source Performance Standards that apply to the proposed equipment.

(2) National Emission Standards for Hazardous Air Pollutants [40 CFR 61]:

There are no emission standards under this part that apply to the proposed equipment.

(3) National Emission Standards for Hazardous Air Pollutants [40 CFR 63]:

There are no emission standards under this part that apply to the proposed equipment.

### **State Rule Applicability**

(1) 326 IAC 1-5 (Emergency Reduction Plans):

Pursuant to 326 IAC 1-5-2, sources with potential to emit (PTE) of 100 tons per year or more of any pollutant, shall prepare and submit to the Commissioner for approval, written emergency reduction plans consistent with safe operating procedures. The requirements under 326 IAC 1-5 do not apply because no pollutant PTE exceed the applicable level of 100 tons per year.

(2) 326 IAC 1-6-2 (Notice of Malfunction):

Pursuant to 326 IAC 1-6, the owner or operator of any facility required to obtain a permit under 326 IAC 2-1-2 and 326 IAC 2-1-4 shall meet the requirements of this rule. 326 IAC 1-6 applies because the proposed equipment, to be permitted under 326 IAC 2-1-3, will be required to obtain an operating permit under 326 IAC 2-1-4.

Pursuant to 326 IAC 1-6:

- (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]

(3) 326 IAC 1-7 (Stack Height Provisions):

The stack height provisions of 326 IAC 1-7 do not apply because the potential PM emissions (20.46 tons/yr) are less than the applicable threshold of 25 tons/yr.

(4) 326 IAC 2-6 (Emission Reporting):

Pursuant to 326 IAC 2-6-1, sources with PTE of PM<sub>10</sub>, SO<sub>2</sub>, or CO emissions greater than one hundred (100) tons per year, are subject to the requirements of this rule. In addition, sources with PTE of VOC or NO<sub>x</sub> emissions greater than or equal to 10 tons per year, are subject to the requirements of this rule.

The source unit and process VOC emissions are greater than the applicable level. Thus, 326 IAC 2-6 applies.

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 April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual statement must be submitted to:

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

The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30.

(5) 326 IAC 5-1-2 (Visible Emission Limitations):

The 326 IAC 5 visible emission limitations apply to any source or facility that generates visible emissions, not including condensed water vapor. This source is subject to 326 IAC 5-1-2 (Visible Emission Limitations) because this source generates applicable visible emissions.

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 40% 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.

(6) 326 IAC 6-3 (Particulate Emission Limitations for Process Operations):

Pursuant to 326 IAC 6-3, sources of PM that are not a source of combustion for indirect heating, an incinerator, a source of open burning, or an existing foundry cupola, or if the unit, process, or operation, is not limited by any other PM requirements under Article 6, a NSPS, or Part 70 permit in accordance with 326 IAC 2-7-24, are subject to the requirements of 326 IAC 6-3. The PM emissions generated by the proposed spray booth and sanding booths are not any of the above mentioned exemptions. Thus, 326 IAC 6-3-2 applies.

The PM emissions from the spray booth are limited by 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-2, the allowable PM emissions for a process weight rate of 0.00057 tons per hour are estimated to be 0.03 lb/hr.

Based on the estimated potential of 0.19 tons PM/yr, use of emission controls, and an efficiency of 85%, the PM emissions from the spray booth are estimated to be 0.005 lb/hr which is less than the allowable level. Thus, compliance is determined to be achieved.

The PM emissions from the sanding booths are limited by 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-2, the allowable PM emissions for a process weight rate of 0.72 tons per hour are estimated to be 3.3 lb/hr.

The combined PM emissions from the sanding booths, after controls, are estimated to be 3.04 tons/yr or 0.69 lb/hr, which is less than the allowable rate of 3.3 lb/hr. Thus, compliance is determined to be achieved.

(7) 326 IAC 8-2-9 (VOC Emission Limitations):

Pursuant to 326 IAC 8-2-1(a)(4), each facility of which construction commenced after July 1, 1990 which have actual VOC emissions greater than 15 lb VOC/day before add-on controls, are subject to the requirements of 326 IAC 8-2.

The proposed new spray booth is not subject to 326 IAC 8-2-9 because the actual VOC emissions, as determined in the emission calculations, are less than 15 lb/day.

In order to demonstrate that the actual VOC emissions from the spray booth are less than the 326 IAC 8-2 applicable rate of 15 lb/day, records shall be required to be kept.

The sanding booth VOC emissions are not subject to 326 IAC 8-2-9 because this rule applies to coatings applied to miscellaneous metal parts. The parts coated in these booths are plastic.

(8) 326 IAC 8-1-6 (BACT Requirements):

Pursuant to 326 IAC 8-1-6, each facility existing as of January 1, 1980, located anywhere in the state, which have potential emissions of 25 tons/yr or more and are not subject to any other Article 8 rules, are required to submit a complete analysis which establishes the best available control technology (BACT) possible for VOC reduction.

326 IAC 8-1-6 does not apply to either sanding booth because the VOC emissions, 13.87 tons per year each, are less than the applicable level of 25 tons per year.

**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.

The proposed equipment will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.

**Conclusion**

The construction of the proposed equipment will be subject to the conditions of the attached proposed **Construction Permit No. CP-039-10054-00320**.

## Indiana Department of Environmental Management Office of Air Management

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

Source Name: Viking Custom Paint Plant of the Viking Formed Products Division of Coachmen Industries, Inc.  
 Source Location: 910 Summa Drive, Elkhart, Indiana 46514  
 County: Elkhart  
 Construction Permit No.: CP-039-10054-00320  
 SIC Code: 3711  
 Permit Reviewer: SDF

On October 13, 1998, the Office of Air Management (OAM) had a notice published in the Elkhart Truth, Elkhart, Indiana, stating that Viking Custom Paint Plant of the Viking Formed Products Division of Coachmen Industries, Inc. had applied for a construction permit to construct and operate one (1) metal or plastic parts surface coating spray booth and two (2) plastic parts sanding booths. 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.

The Office of Air Management has made the following change to the proposed construction permit:

Page 6 of 8, Operation Condition No. 12(b) is changed to state that the 15 lb/day VOC limit applies only when coating metal parts. The condition is changed as follows (changes are bolded):

#### Volatile Organic Compound

12. That pursuant to 326 IAC 2-1-3(i)(8):
- (a) records of surface coating quantities and organic solvent contents from REPBOOTH, SANDBOOTH #1, and SANDBOOTH #2 shall be maintained, and
  - (b) records of surface coating quantities and organic solvent contents from REPBOOTH shall be maintained demonstrating that the total daily VOC emissions **from the coating of metal parts** in spray booth REPBOOTH do not exceed 15 pounds per day.

The records under this condition shall be maintained for a minimum period of 36 months and made available upon request of the Office of Air Management (OAM).

Any change or modification which may increase the actual VOC emissions from the **coating of metal parts** in spray booth REPBOOTH to greater than fifteen (15) pounds per day, **increase the potential VOC emissions from the coating of plastic parts in spray booth REPBOOTH**, sanding booth SANDBOOTH #1, and sanding booth SANDBOOTH #2 to greater than twenty-five tons per year, must be approved by the Office of Air Management (OAM) before such change may occur.

# Emission Calculations

Viking Custom Paint

Viking Custom Paint has submitted an application to permit the following equipment:

- (1) one (1) automobile body parts repair spray booth, identified as REPBOOTH, with PM/PM10 emissions controlled by an exhaust filter system, with all emissions exhausted to Stack 8,
- (2) one (1) fiberglass board sanding booth, identified as SANDBOOTH #1, with PM/PM10 emissions controlled by a cloth filter, with a design grain loading of 0.027 gr/dscf and design air flow rate of 1500 dscfm, with emissions exhausted to Stack 9, and
- (3) one (1) fiberglass board sanding booth, identified as SANDBOOTH #2, with PM/PM10 emissions controlled by a cloth filter, with a design grain loading of 0.027 gr/dscf and design air flow rate of 1500 dscfm, with emissions exhausted to Stack 10.

The emissions generated by the above equipment are PM, PM10, VOCs, and HAPs. The spray booth PM and PM10 emissions are controlled by an exhaust filter. The PM/PM10 emissions from the sanding booths each are controlled by a cloth filter.

The following calculations determine the potential to emit (PTE), the allowable emissions, and the potential emissions after controls.

## Potential to Emit (PTE) and Emissions After Controls:

The following calculations determine the PTE and emissions after controls generated by the proposed equipment.

### A. Spray Booth Emissions (PM is determined to be equal to PM10):

The following calculations list the spray booth PM, PM10, and VOC PTE as determined by the standardized surface coating spreadsheet (see attached):

	PM tons/yr	PM10 tons/yr	VOC tons/yr
Basecoat	0.06	0.06	0.80
Basecoat Thinner	0.00	0.00	0.90
Clearcoat	0.13	0.13	0.52
Cleanup Solvent	0.00	0.00	1.92
<b>total</b>	<b>0.19</b>	<b>0.19</b>	<b>4.14</b>

The following calculations determine the HAP PTE based 8,760 hours of operation, emissions before controls, and the maximum lb/hr rates provided in Form Y of the application:

$$X \text{ lb/hr} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb} = \text{ton HAP/yr}$$

HAP	Max. Rate lb/hr	Emissions ton/yr
Ethyl Benzene	0.06	<b>0.26</b>
MEK	0.06	<b>0.26</b>
MIK	0.04	<b>0.18</b>
Toluene	0.19	<b>0.79</b>
Xylene	0.06	<b>0.26</b>
<b>total</b>		<b>1.75</b>

**B. Sanding Booths (PM is determined to be equal to PM10):**

The following calculations determine the PM/PM10 PTE based on emissions controlled by cloth filters with a design outlet grain loading of 0.027 gr/dscf, an air flow rate of 1,500 dscfm, 85% efficiency, and 8,760 hours of operation:

$$\text{gr/dscf} * \text{dscf/min} * 60 \text{ min/hr} * 8760 \text{ hr/yr} * 1/7000 \text{ lb/gr} * 1/2000 \text{ ton/lb} = \text{tons PM/yr (AC)}$$

$$X \text{ tons/yr AC} / (1 - 0.85) = \text{tons/yr before controls}$$

	gr/dscf	dscfm	Emissions After Controls (AC) tons/yr	Emissions Before Controls tons/yr
Sand Booth 1	0.027	1500	<b>1.52</b>	<b>10.13</b>
Sand Booth 2	0.027	1500	<b>1.52</b>	<b>10.13</b>
<b>total</b>			<b>3.04</b>	<b>20.26</b>

The following calculations list the spray booth PM, PM10, and VOC PTE as determined by the standardized surface coating spreadsheet (see attached). The styrene emissions, as estimated below, are determined to be VOCs and are included with the other VOC emissions.

	PM tons/yr	PM10 tons/yr	VOC tons/yr
Solvent Wipe	0.00	0.00	27.73
Glazecoat	0.01	0.01	0.01
Styrene	0.00	0.00	0.26
<b>total</b>	<b>0.01</b>	<b>0.01</b>	<b>28.00</b>

The following calculations determine the HAP PTE based 8,760 hours of operation, emissions before controls, and the maximum lb/hr rates provided in Form Y of the application:

$$X \text{ lb/hr} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb} = \text{ton HAP/yr}$$

HAP	Max. Rate lb/hr	Emissions ton/yr
Styrene	0.06	0.26
<b>total</b>		<b>0.26</b>

**Allowable Emissions:**

The following calculations determine the allowable emissions from this source.

**A. Spray Booth Emissions (PM is determined to be equal to PM10):**

The PM emissions generated by the spray booth are limited by 326 IAC 6-3. Pursuant to 326 IAC 6-3, the allowable PM emissions for a process weight rate of 0.00057 tons per hour is determined as follows:

$$E = 4.10 P^{0.67} = \text{lb PM/hr}$$

$$\text{lb PM/hr} * 8760 \text{ hr/yr} * 1/2000 \text{ ton PM/lb PM} = \text{ton PM/yr}$$

Process Weight Rate Rate, ton/hr	Allowable PM lb/hr	Allowable PM ton/yr
0.00057	<b>0.03</b>	<b>0.13</b>

All other emissions are equal to the estimated PTE.

**B. Sanding Booths (PM is determined to be equal to PM10):**

The PM emissions generated by the sanding booths are limited by 326 IAC 6-3. Pursuant to 326 IAC 6-3, the allowable PM emissions for a combined process weight rate of 0.72 tons per hour is determined as follows:

$$E = 4.10 P^{0.67} = \text{lb PM/hr}$$

$$\text{lb PM/hr} * 8760 \text{ hr/yr} * 1/2000 \text{ ton PM/lb PM} = \text{ton PM/yr}$$

Combined Process Weight Rate Rate, ton/hr	Allowable PM lb/hr	Allowable PM ton/yr
0.72	<b>3.3</b>	<b>14.45</b>

All other emissions are equal to the estimated PTE.

**Emissions Summary:**

The following is a summary of the above estimated emissions.

	PM ton/yr	PM10 ton/yr	VOC ton/yr	Greatest Single HAP ton/yr	Combined HAPs ton/yr
PTE	20.46	20.46	32.14	0.79	2.01
Allowable	14.58	14.58	32.14	0.79	2.01
Potential After Controls	3.08	3.08	32.14	0.79	2.01

**Rule Applicability:**

**Prevention of Significant Deterioration (PSD) Requirements [326 IAC 2-2]:**

The potential emissions after controls are less than applicable level of 250 tons per year. Thus, 326 IAC 2-2 is not applicable in this case.

	PM ton/yr	PM10 ton/yr	VOC ton/yr
Pot. Emissions After Control	<b>3.08</b>	<b>3.08</b>	<b>32.14</b>
Applicable Levels	250	250	250

**State Construction Permits [326 IAC 2-1-3]:**

Pursuant to 326 IAC 2-1-3, sources with allowable emissions of twenty-five (25) tons per year of any regulated pollutant, ten (10) tons per year of any single HAP, or twenty-five (25) tons per year shall obtain a construction permit.

The adjusted allowable rate used to determine permit applicability are based on the lesser of the potential and estimated allowable rates.

The PM emissions from the spray booth and sanding booths are limited by 326 IAC 6-3, yielding allowable rates (0.13 tons/yr and 14.45 tons/yr respectively) that are less than the estimated potential emissions (0.19 tons/yr and 20.27 tons/yr, respectively). Thus, the adjusted allowable PM rate from the spray booth and sanding booths are 0.13 tons/yr and 14.45 tons/yr, respectively.

All other pollutant adjusted allowable emissions are equal to their respective estimated potentials.

	PM ton/yr	PM10 ton/yr	VOC ton/yr
Adjusted Allowable	<b>14.58</b>	<b>14.58</b>	<b>32.14</b>
Applicable Levels	25	25	25
		Greatest Single HAP	Combined HAPs
Emissions, tons/yr		<b>0.79</b>	<b>2.01</b>
Applicable Levels, tons/yr		10	25

Since the allowable VOC emissions exceed the applicable level of 25 tons/yr, this proposed modification shall be permitted pursuant to 326 IAC 2-1-3.

**Malfunctions [326 IAC 1-6]:**

Pursuant to 326 IAC 1-6, the owner or operator of any facility required to obtain a permit under 326 IAC 2-1-2 and 326 IAC 2-1-4 shall meet the requirements of this rule. 326 IAC 1-6 applies because the proposed equipment, to be permitted under 326 IAC 2-1-3, will be required to obtain an operating permit under 326 IAC 2-1-4.

Pursuant to 326 IAC 1-6:

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.

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.

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).

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.

**Stack Height Provisions [326 IAC 1-7]:**

The stack height provisions of 326 IAC 1-7 do not apply because the potential PM emissions (20.46 ton/yr) are less than the applicable threshold of twenty-five (25) tons/yr.

**Emission Reporting [326 IAC 2-6]:**

Pursuant to 326 IAC 2-6-1, sources with PM<sub>10</sub>, SO<sub>2</sub>, or CO emissions greater than one hundred (100) tons per year are subject to the requirements of this rule. In addition, sources with VOC and NO<sub>x</sub> emissions greater than 10 tons per year in Elkhart County are subject to the requirements of this rule. The VOC PTE is from the proposed equipment are greater than the applicable level. Thus, 326 IAC 2-6 applies.

**Opacity Limitations [326 IAC 5]:**

This source is subject to 326 IAC 5-1-2, opacity limitations. Pursuant to this rule, 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 40% 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.

**PM Emission Limitations for Process Operations [326 IAC 6-3-2]:**

The PM emissions generated by the spray booth are limited by 326 IAC 6-3. Pursuant to 326 IAC 6-3, the allowable PM emissions for a process weight rate of 0.00057 tons per hour is to be 0.03 lb/hr which is equivalent to 0.13 tons per year.

Based on the estimated potential of 0.19 tons PM/yr, use of emissions controls, and an efficiency of 85%, the PM emissions are estimated below:

$$0.19 \text{ tons/yr} * (1 - 0.85) = \text{emissions after controls (0.02 tons/yr)}$$

$$0.02 \text{ ton/yr} * 1/8760 \text{ yr/hr} * 2000 \text{ lb/ton} = 0.005 \text{ lb PM/hr}$$

The estimated PM emissions after controls are estimated to be 0.005 lb/hr which is less than the allowable hourly rate of 0.03 lb/hr. Thus, compliance is determined to be achieved.

The PM emissions generated by the sanding booths are also limited by 326 IAC 6-3. Pursuant to 326 IAC 6-3, the allowable PM emissions for a process weight rate of 0.72 tons per hour are estimated to be 3.3 lb/hr.

As estimated above, the combined PM emissions from the sanding booths, after controls are 3.04 ton/yr or 0.69 lb/hr which is less than the allowable rate of 3.3 lb/hr. Thus, compliance is determined to be achieved.

**VOC Emissions (326 IAC 8-2-9):**

Pursuant to 326 IAC 8-2-1(a)(4), each facility of which construction commenced after July 1, 1990, and which have actual emissions greater than 15 lb VOC/day before add-on controls, are subject to the requirements of 326 IAC 8-2.

The proposed new spray booth is not subject to 326 IAC 8-2-9 because the actual emissions, as determined below, are less than 15 lb/day.

$$\text{X pot. lb/day} * (5824 \text{ hrs per yr} / 8760 \text{ hrs per yr}) = \text{act. lb /day}$$

Coating	pot. VOC lb/day	act. VOC lb/day
Basecoat	4.39	2.94
Basecoat Thinner	4.94	3.31
Clearcoat	2.86	1.92
Cleanup Solvent	10.5	7.04
	<b>total</b>	<b>15</b>

In order to demonstrate the the actual VOC emissions from the spray booth are less than the 326 IAC 8-2 applicable rate of 15 lb/day, records shall be required to be kept.

The sanding booth VOC emissions are not subject to 326 IAC 8-2-9 because this rule applies to coatings applied to miscellaneous metal parts. The sanding booths only coat fiberglass parts.

**VOC Emissions (326 IAC 8-1-6):**

Pursuant to 326 IAC 8-1-6, each facility existing as of January 1, 1980, located anywhere in the state, which have potential emissions of 25 tons/yr or more, and are not subject to any other Article 8 rules, are required to submit a complete analysis which establishes the best available control technology (BACT) possible for VOC reduction.

326 IAC 8-1-6 does not apply to either sanding booth because the VOC emissions, 13.87 tons per year each, are less than the applicable level of 25 tons/yr.

**New Source Performance Standards (NSPS) [326 IAC 12 (40 CFR 60)]:**

There are no New Source Performance Standards (NSPS) that apply to the proposed equipment.

**National Emission Standards for Hazardous Air Pollutants [40 CFR 61]:**

There are no emission standards under this part that apply to the proposed boiler.

**National Emission Standards for Hazardous Air Pollutants [40 CFR 63]:**

There are no emission standards under this part that apply to the proposed boiler.

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

**Company Name:** Viking Custom Paint Plant of the Viking Formed Products Division of Coachmen Industries, Inc.  
**Address City IN Zip:** 910 Summa Drive, Elkhart, IN 46514  
**CP:** 039-10054  
**Plt ID:** 039-00320  
**Reviewer:** SDF  
**Date:** 08-28-98

Spray Booth Emissions																
Material	Density lb/gal	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Material (gal/unit)	Maximum (unit/hr)	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
Basecoat	7.8	77.82%	0.0%	77.8%	0.0%	15.50%	0.37500	0.080	6.09	6.09	0.18	4.39	0.80	0.06	39.31	75%
Base Coat Thinner	6.9	100.00%	0.0%	100.0%	0.0%	0.00%	0.37500	0.080	6.86	6.86	0.21	4.94	0.90	0.00	N/A	75%
Clearcoat	7.8	49.15%	0.0%	49.2%	0.0%	41.10%	0.39000	0.080	3.81	3.81	0.12	2.86	0.52	0.13	9.28	75%
Cleanup Solvent	7.0	100.00%	0.0%	100.0%	0.0%	0.00%	0.78100	0.080	7.00	7.00	0.44	10.50	1.92	0.00	N/A	75%

<b>State Potential Emissions</b>	<b>Add worst case coating to all solvents</b>	<b>0.94</b>	<b>22.68</b>	<b>4.14</b>	<b>0.19</b>
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Sand Booths 1 and 2																
Material	Density lb/gal	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Material (gal/unit)	Maximum (unit/hr)	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
Solvent Wipe	6.3	100.00%	0.0%	100.0%	0.0%	0.00%	0.50000	2.000	6.33	6.33	6.33	151.92	27.73	0.00	N/A	75%
Glazecoat	15.0	25.00%	0.0%	25.0%	0.0%	75.00%	0.00040	2.000	3.75	3.75	0.00	0.07	0.01	0.01	5.00	75%

<b>State Potential Emissions</b>	<b>Add worst case coating to all solvents</b>	<b>6.33</b>	<b>151.99</b>	<b>27.74</b>	<b>0.01</b>
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**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