Indiana Department of Environmental Management
*We Protect Hoosiers and Our Environment.*
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

**Michael R. Pence**
*Governor*

**Carol S. Comer**
*Commissioner*

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

Preliminary Findings Regarding a Minor Source Operating Permit Transitioning to a Part 70 Operating Permit

for Wabash National L.P. (East Plant) in Tippecanoe County

Part 70 Operating Permit No.: T157-37253-00089
Significant Source Modification No.: 157-37455-00089

The Indiana Department of Environmental Management (IDEM) has received an application from Wabash National L.P. (East Plant), located at 3460 McCarty Lane, Lafayette, IN 47905, for transition from a Minor Source Operating Permit to a Part 70 Operating Permit. If approved by IDEM's Office of Air Quality (OAQ), this proposed transition would allow Wabash National L.P. (East Plant) to make certain changes at its existing source. Wabash National L.P. (East Plant) has applied to modify existing surface coating processes to increase production, and install new mobile roller-application coating, floor coating, bonding, scratch and dent repair, and welding operations, cold cleaning degreasers, and natural gas combustion facilities.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g. changes that add or modify synthetic minor emission limits). IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

A copy of the permit application and IDEM's preliminary findings are available at:

Tippecanoe County Public Library
627 South Street
Lafayette, IN 49701

A copy of the preliminary findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

**How can you participate in this process?**

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number T157-37253-00089 and SSM 157-37455-00089 in all correspondence.

**Comments should be sent to:**

Doug Logan
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension 4-5328
Or dial directly: (317) 234-5328
Fax: (317) 232-6749 attn: Doug Logan
E-mail: dlogan@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

**What will happen after IDEM makes a decision?**

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Doug Logan of my staff at the above address.

Jenny Acker, Section Chief
Permits Branch
Office of Air Quality

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*Commissioner*

**DRAFT**

Mr. Andrew Frisbie
Wabash National L.P. (East Plant)
1000 Sagamore Parkway South
Lafayette, Indiana 47905

Re: 157-37455-00089
Significant Source Modification

Dear Mr. Frisbie:

Wabash National L.P. (East Plant) was issued Minor Source Operating Permit Renewal No. M157-20306-00089 on October 24, 2007 for a stationary truck and trailer manufacturing plant located at 3460 McCarty Lane, Lafayette, Indiana 47905. An application to transition to a Part 70 Operating Permit was received on June 1, 2016. Pursuant to the provisions of 326 IAC 2-7-10.5, a Significant Source Modification is hereby approved as described in the attached Technical Support Document.

Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

The following is a list of the modified emission units and pollution control device(s):

(a) One (1) surface coating operation, identified as Parts Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of parts for1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack PB.

(b) One (1) surface coating operation, identified as Finish Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack FPB.

(c) One (1) surface coating operation, identified as Refinish Offline Paint Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.5 trailers per hour and a maximum usage of 2.00 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack ROPB.

Under 40 CFR 63, Subpart MMMM, the source is an existing affected source.

(d) One (1) caulking operation, constructed in 2015 and approved in 2016 for modification, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

(e) One (1) finished product surface cleaning operation, constructed in 2015 and approved in 2016 for modification, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 0.20 gallons of cleaning products per trailer, and exhausting indoors.

The finished product cleaning operation is not a coating operation as defined at 40 CFR 63.3981. Cleaning materials are not applied to prepare the surface for coating application or to remove dried coating, or to clean coating equipment.

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The following is a list of the new emission units and pollution control device(s):

(a) One (1) mobile roller application coating operation, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 0.10 gallon per trailer, and exhausting indoors.

(b) One (1) trailer floor coating operation, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

(c) Bonding operations, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

(1) One (1) floor, roof, and sides bonding process, identified as BC-1, with a maximum usage of 0,12 gallon per trailer, and exhausting indoors.

(2) One (1) D-ring bonding process, identified as BC-2, with maximum usage of 0.49 gallons per trailer, and exhausting indoors.

(d) Scratch and dent repair operations, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

(1) One (1) touchup painting process, with a maximum usage of 0,02 gallon per trailer, using paint pens and exhausting indoors.

(2) One (1) dent repair process, with maximum usage of 0.04 gallons of body filler per trailer, and exhausting indoors.

(e) Welding operations, approved in 2016 for construction, consisting of the following:

(1) Two (2) carbon steel (ER70S) welding stations, with a maximum electrode consumption of 10.45 lbs/hr, each.

(2) Nine (9) Lincoln DC400 carbon steel (ER70S) welding stations, with a maximum electrode consumption of 12.16 pounds per hour, each.

(3) Two (2) stainless steel (ER309LSi) welding stations, with a maximum electrode consumption of 10.45 pounds per hour, each.

(4) One (1) aluminum (ER4043) welding station, with a maximum electrode consumption of 10.45 pounds per hour.

(5) Two (2) mobile aluminum (ER4043) welding stations, identified as Mobile Welder, with a maximum electrode consumption of 1.2 pounds per hour.

The following construction conditions are applicable to the proposed modification:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

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2. This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

3. Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

Commenced Construction

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(j), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Approval to Construct

6. Pursuant to 326 IAC 2-7-10.5, this Significant Source Modification authorizes the construction of the new emission unit(s), when the Significant Source Modification has been issued.

   The source must comply with the requirements of 326 IAC 2-7-10.5(m)(3) before operation of any of the proposed emission units can begin.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

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 Doug Logan of my staff, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Doug Logan or extension 4-5328 or dial (317) 234-5328.

Sincerely,

Jenny Acker, Section Chief
Permits Branch
Office of Air Quality

Attachments: Significant Source Modification and Technical Support Document

cc: File - Tippecanoe County
Tippecanoe County Health Department
U.S. EPA, Region 5
Compliance and Enforcement Branch

Indiana Department of Environmental Management
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*Commissioner*

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# Significant Source Modification to a Part 70 Source

# OFFICE OF AIR QUALITY

## Wabash National L.P. (East Plant)
## 3460 McCarty Lane
## Lafayette, Indiana 47905

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.
This permit also addresses certain new source review requirements for new and/or existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

| Significant Source Modification No.: 157-37455-00089 | |
|---|---|
| Issued by:<br><br>Jenny Acker,<br>Section Chief, Permits Branch<br>Office of Air Quality | Issuance Date:<br><br>Expiration Date: |

## TABLE OF CONTENTS

## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary truck and trailer manufacturing plant.

| | |
|---|---|
| Source Address: | 3460 McCarty Lane, Lafayette, Indiana 47905 |
| General Source Phone Number: | (765) 771-5300 |
| SIC Code: | 3715 (Truck Trailers) |
| County Location: | Tippecanoe |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Part 70 Operating Permit Program<br>Minor Source, under PSD and Emission Offset Rules<br>Major Source, Section 112 of the Clean Air Act<br>Not 1 of 28 Source Categories |

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

(a) One (1) surface coating operation, identified as Parts Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of parts for1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack PB.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(b) One (1) surface coating operation, identified as Finish Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack FPB.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(c) One (1) surface coating operation, identified as Refinish Offline Paint Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.5 trailers per hour and a maximum usage of 2.00 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack ROPB.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(d) One (1) caulking operation, identified as Caulk Station, constructed in 2015 and approved in 2016 for modification, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(e) One (1) mobile roller application coating operation, identified as Mobile Roller Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 0.10 gallon per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(f) Bonding operations, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

(1) One (1) floor, roof, and sides bonding process, identified as BC-1 Station, with a maximum usage of 0,12 gallon per trailer, and exhausting indoors.

(2) One (1) D-ring bonding process, identified as BC-2 Station, with maximum usage of 0.49 gallons per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(g) One (1) finished product surface cleaning operation, identified as Finish Cleaning Station, constructed in 2015 and approved in 2016 for modification, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 0.20 gallons of cleaning products per trailer, and exhausting indoors.

(h) One (1) trailer floor coating operation, identified as Trailer Floor Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

(i) Scratch and dent repair operations, identified as Scratch & Dent Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

(1) One (1) touchup painting process, with a maximum usage of 0,02 gallon per trailer, using paint pens and exhausting indoors.

(2) One (1) dent repair process, with maximum usage of 0.04 gallons of body filler per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, the dent repair process is considered part of an existing affected source.

(n) Welding operations, approved in 2016 for construction, consisting of the following:

(1) Two (2) carbon steel (ER70S) welding stations, with a maximum electrode consumption of 10.45 lbs/hr, each.

(2) Nine (9) Lincoln DC400 carbon steel (ER70S) welding stations, with a maximum electrode consumption of 12.16 pounds per hour, each.

(3) Two (2) stainless steel (ER309LSi) welding stations, with a maximum electrode consumption of 10.45 pounds per hour, each.

(4) One (1) aluminum (ER4043) welding station, with a maximum electrode consumption of 10.45 pounds per hour.

(5) Two (2) mobile aluminum (ER4043) welding stations, identified as Mobile Welder, with a maximum electrode consumption of 1.2 pounds per hour.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

(a) Cold cleaner degreasers meeting the exemption levels specified in 326 IAC 2-1.1-3(e) or the 326 IAC 2-7-1(21)(E), whichever is lower, as follows:

(1) Two (2) cold cleaner degreasers, identified as PW-1 and PW-2, approved in 2016 for construction, with a maximum solvent usage of 50 gallons per year, each, and exhausting indoors.

(2) Two (2) Model 1055 automatic spray gun cleaners, approved in 2016 for construction, using a non-VOC solvent (acetone), and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

A.4 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

(a) Combustion related activities, as follows:

(2) Two (2) natural gas fired space heating units, identified as TC-3 and TC-4, approved in 2016 for construction, with a maximum heat input capacity of 0.83 MMBtu/hr, each, and exhausting indoors.

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION B GENERAL CONDITIONS

B.1 Advanced Source Modification Approval [326 IAC 2-7-5(15)] [326 IAC 2-7-10.5]

Pursuant to 326 IAC 2-7-10.5(h)(2), the emission units specified in Section A.3 are hereby approved for construction.

B.2 Permit No Defense [IC 13-11 through 13-20] [IC 13-22 through 13-25]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.3 Effective Date of the Permit [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)] [326 IAC 2-7-10.5(j)]

Pursuant to 326 IAC 2-7-10.5(j), construction must commence within eighteen (18) months of the issuance of this approval.

B.5 Modification to Construction Conditions [326 IAC 2]

All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

**SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

(a) One (1) surface coating operation, identified as Parts Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of parts for1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack PB.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(b) One (1) surface coating operation, identified as Finish Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack FPB.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(d) One (1) caulking operation, identified as Caulk Station, constructed in 2015 and approved in 2016 for modification, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(e) One (1) mobile roller application coating operation, identified as Mobile Roller Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 0.10 gallon per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(f) Bonding operations, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

(1) One (1) floor, roof, and sides bonding process, identified as BC-1 Station, with a maximum usage of 0,12 gallon per trailer, and exhausting indoors.

(2) One (1) D-ring bonding process, identified as BC-2 Station, with maximum usage of 0.49 gallons per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(h) One (1) trailer floor coating operation, identified as Trailer Floor Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

(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 2-7-5(1)]**

D.1.1 Best Available Control Technology (BACT) - VOC [326 IAC 8-1-6]

In order to render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable to the Trailer Floor Station, the Permittee shall comply with the following:

(a) The total VOC input to the Trailer Floor Station including coatings, dilution solvents, and cleaning solvents, shall not exceed twenty four and nine-tenths (24.9) tons per twelve (12) consecutive month period, each, with compliance determined at the end of each month.

Compliance with this limit shall limit the potential to emit of VOC to less than twenty-five (25) tons per twelve (12) consecutive month period from the Trailer Floor Station, and shall render the requirements of 326 IAC 8-1-6 not applicable to the Trailer Floor Station.

D.1.2 Volatile Organic Compounds [326 IAC 8-2-9 (Miscellaneous Metal Coating)]

Pursuant to 326 IAC 8-2-9, the Permittee shall not allow the discharge into the atmosphere from the units listed in the table below of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.

| Emissions Unit |
|---|
| Parts Booth |
| Finish Booth |
| Caulk Station |
| Bonding (BC-1 Station & BC-2 Station) |

D.1.3 Volatile Organic Compounds (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

(a) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.

(b) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.

(c) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.

(d) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.

(e) Minimize VOC emissions from the cleaning application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

D.1.4 Particulate Emission Limitations [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the spray surface coating operations listed in the table below shall be controlled by dry particulate filters, and the Permittee shall operate the control devices in accordance with manufacturer's specifications.

| Emissions Unit |
|---|
| Parts Booth |
| Finish Booth |

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements [326 IAC 2-7-5(1)]**

D.1.6 Particulate Matter Control

In order to assure compliance with Condition D.1.4, the dry filters for particulate matter control shall be in operation and control emissions from the Parts Booth and Finish Booth facilities at all times the Parts Booth and Finish Booth facilities are in operation.

D.1.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-4] [326 IAC 8-1-2(a)]

Compliance with the VOC content and input limitations contained in Conditions D.1.1, and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the “as supplied” and “as applied” VOC data sheets. 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 2-7-5(1)][326 IAC 2-7-6(1)]**

D.1.8 Operator Training and Monitoring

The surface coating booth stacks PB and FPB have applicable compliance monitoring conditions as specified below:

(a) The dry filters for particulate matter overspray control shall be properly in place and maintained to ensure integrity and particulate loading of the filters at all times when the paint booths are in operation.

(b) The Permittee shall implement an operator training program with the following requirements:

(1) All operators that perform painting operations or booth maintenance shall be trained in the proper set-up and operation of the particulate control system. All existing operators shall be trained within sixty (60) days of permit issuance. All new operators shall be trained upon hiring.

(2) Training shall include proper filter alignment, filter inspection and maintenance, and troubleshooting practices. The training program shall be in writing and retained on site. Copies of the training program, the list of trained operators, and training records shall be maintained on site or available within one (1) hour for inspection by IDEM.

(3) All operators shall be given refresher training annually.

(c) Records shall be maintained of any non-routine maintenance activities performed on the particulate emission control devices which have air flow greater than four thousand cubic feet per minute (4000 cfm).

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

D.1.9 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with

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, dilution solvent, and cleaning solvent used when coating wood trailer floors.

(2) The amount of coating material and solvent used on monthly basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(3) The total VOC usage for each month and each compliance period.

(b) To document the compliance status with Condition D.1.2, the Permittee shall maintain records in accordance with the following. Records maintained shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limit established in Condition D.1.2. 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, less water, in the Parts Booth, Finish Booth, Caulk Station, BC-1 Station, and BC-2 Station.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) 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.

(c) To document the compliance status with Condition D.1.8, the Permittee shall maintain the following:

(1) Records of initial and refresher training required by Condition D.1.8(b).

(2) Records of non-routine maintenance required by Condition D.1.8(c).

(d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.1.10 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.1 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35).

**SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

**Insignificant Activities:**

(a) Cold cleaner degreasers meeting the exemption levels specified in 326 IAC 2-1.1-3(e) or the 326 IAC 2-7-1(21)(E), whichever is lower, as follows:

(1) Two (2) cold cleaner degreasers, identified as PW-1 and PW-2, approved in 2016 for construction, with a maximum solvent usage of 50 gallons per year, each, and exhausting indoors.

(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 2-7-5(1)]**

D.2.1 Cold Cleaner Degreaser Control Equipment and Operating Requirements [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), the Permittee shall:

(a) Ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) Ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
(B) A water cover when solvent used is insoluble in, and heavier than, water.
(C) A refrigerated chiller.
(D) Carbon adsorption.
(E) An alternative system of demonstrated equivalent or better control as

those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:
(A) must be a solid, fluid stream; and
(B) shall be applied at a pressure that does not cause excessive splashing.

D.2.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), the Permittee shall not operate a cold cleaning degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and their associated control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

D.2.4 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.2, the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall be retained on-site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

(1) The name and address of the solvent supplier.

(2) The date of purchase (or invoice/bill dates of contract servicer indicating service date).

(3) The type of solvent purchased.

(4) The total volume of the solvent purchased.

(5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

**SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

(c) One (1) surface coating operation, identified as Refinish Offline Paint Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.5 trailers per hour and a maximum usage of 2.00 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack ROPB.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(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 2-7-5(1)]**

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-10-3] [326 IAC 8-10-4]

Pursuant to 326 IAC 8-10-4, the surface coating operations in the Refinish Offline Paint Booth are subject to the requirements of 326 IAC 8-10 and the Permittee shall comply with the following:

(a) The Permittee shall limit emissions of VOCs from refinishing operations subject to 326 IAC 8-10 by using coatings or surface preparation products with VOC limits based on the VOC content as applied.

The VOC content shall not exceed the following limits:

| | VOC Content Limit | |
|---|---|---|
| Coating Category | grams/liter | pounds/gallon |
| Pretreatment wash primer | 780 | 6.5 |
| Precoat | 660 | 5.5 |
| Primer/primer surfacer | 576 | 4.8 |
| Primer sealer | 552 | 4.6 |
| Topcoat | | |
| Single and two stage | 600 | 5.0 |
| Three and four stage | 624 | 5.2 |
| Multicolored topcoat | 680 | 5.7 |
| Specialty | 840 | 7.0 |

For surface preparation products:

| | VOC Content Limit | |
|---|---|---|
| Type of Substrate | grams/liter | pounds/gallon |
| Plastic | 780 | 6.5 |
| Other | 168 | 1.4 |

(b) Application of all specialty coatings except anti-glare/safety coatings shall not exceed five percent (5%) by volume of all coatings applied on a monthly basis.

D.3.2 Volatile Organic Compounds (VOC) Work Practices [326 IAC 8-10-3] [326 IAC 8-10-5]

The Permittee shall comply with the work practice standards contained in 326 IAC 8-10-5 (included as Attachment A to the operating permit).

D.3.3 Particulate Emission Limitations [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the spray surface coating operations in the Refinish Offline Paint Booth shall be controlled by dry particulate filters, and the Permittee shall operate the control devices in accordance with manufacturer's specifications.

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

**Compliance Determination Requirements [326 IAC 2-7-5(1)]**

D.3.5 Particulate Matter Control

In order to assure compliance with Condition D.3.3, the dry filters for particulate matter control shall be in operation and control emissions from the Refinish Offline Paint Booth facility at all times the Refinish Offline Paint Booth facility is in operation.

D.3.6 Volatile Organic Compounds (VOC) [326 IAC 8-10-3] [326 IAC 8-10-7] [326 IAC 8-1-4]

Pursuant to 326 IAC 8-10-7, compliance with the VOC content limits contained in Condition D.3.1 shall be determined pursuant to the applicable test methods and requirements of 326 IAC 8-1-4 and 40 CFR 60, Appendix A. The Permittee may use data provided with coatings or surface preparation products formulation information such as the container label, product data sheets, and MSDS sheet. IDEM, OAQ and the U.S. EPA may require VOC content determination and verification of any coating or surface preparation product using 40 CFR 60, Appendix A, Method 24. In the event of any inconsistency between 40 CFR 60, Appendix A, Method 24 and formulation data, 40 CFR 60, Appendix A, Method 24 shall govern.

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

D.3.7 Operator Training and Monitoring

The surface coating booth stack ROPB has applicable compliance monitoring conditions as specified below:

(a) The dry filters for particulate matter overspray control shall be properly in place and maintained to ensure integrity and particulate loading of the filters at all times when the paint booths are in operation.

(b) The Permittee shall implement an operator training program with the following requirements:

(1) All operators that perform painting operations or booth maintenance shall be trained in the proper set-up and operation of the particulate control system. All existing operators shall be trained within sixty (60) days of permit issuance. All new operators shall be trained upon hiring.

(2) Training shall include proper filter alignment, filter inspection and maintenance, and troubleshooting practices. The training program shall be in writing and retained on site. Copies of the training program, the list of trained operators, and training records shall be maintained on site or available within one (1) hour for inspection by IDEM.

(3) All operators shall be given refresher training annually.

(c) Records shall be maintained of any non-routine maintenance activities performed on the particulate emission control devices which have air flow greater than four thousand cubic feet per minute (4000 cfm).

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

D.3.8 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.1, the Permittee shall comply with the record keeping requirements contained in 326 IAC 8-10-9 (included as Attachment A to the operating permit).

(b) To document the compliance status with Condition D.3.7, the Permittee shall maintain the following:

(1) Records of initial and refresher training required by Condition D.3.7(b).

(2) Records of non-routine maintenance required by Condition D.3.7(c).

(c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.3.9 Reporting Requirements

(a) The Permittee shall comply with the reporting requirements contained in 326 IAC 8-10-6(c) and 326 IAC 8-10-9(e) (included as Attachment A to the operating permit).

(b) These reports shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(35).

**SECTION E.1 NESHAP**

**Emissions Unit Description:**

(a) One (1) surface coating operation, identified as Parts Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of parts for1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack PB.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(b) One (1) surface coating operation, identified as Finish Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack FPB.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(c) One (1) surface coating operation, identified as Refinish Offline Paint Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.5 trailers per hour and a maximum usage of 2.00 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack ROPB.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(d) One (1) caulking operation, identified as Caulk Station, constructed in 2015 and approved in 2016 for modification, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(e) One (1) mobile roller application coating operation, identified as Mobile Roller Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 0.10 gallon per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(f) Bonding operations, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

(1) One (1) floor, roof, and sides bonding process, identified as BC-1 Station, with a maximum usage of 0,12 gallon per trailer, and exhausting indoors.

(2) One (1) D-ring bonding process, identified as BC-2 Station, with maximum usage of 0.49 gallons per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(i) Scratch and dent repair operations, identified as Scratch & Dent Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

(2) One (1) dent repair process, with maximum usage of 0.04 gallons of body filler per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, the dent repair process is considered part of an existing affected source.

**Insignificant Activities:**

(b) Cold cleaner degreasers meeting the exemption levels specified in 326 IAC 2-1.1-3(e) or the 326 IAC 2-7-1(21)(E), whichever is lower, as follows:

(1) Two (2) Model 1055 automatic spray gun cleaners, approved in 2016 for construction, using a non-VOC solvent (acetone), and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

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

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]**

E.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart MMMM

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports 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

E.1.2 National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products [40 CFR Part 63, Subpart MMMM][326 IAC 20-80]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart MMMM (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 20-80, for the emission unit(s) listed above:

(1) 40 CFR 63.3880
(2) 40 CFR 63.3881(a)(1)
(3) 40 CFR 63.3881(a)(2)
(4) 40 CFR 63.3881(b)
(5) 40 CFR 63.3882(a)
(6) 40 CFR 63.3882(b)
(7) 40 CFR 63.3882(e)
(8) 40 CFR 63.3883(c)(2)
(9) 40 CFR 63.3883(d)
(10) 40 CFR 63.3890(b)(1)
(11) 40 CFR 63.3891(a)
(12) 40 CFR 63.3891(b)
(13) 40 CFR 63.3892(a)

(14) 40 CFR 63.3893(a)
(15) 40 CFR 63.3900(a)(1)
(16) 40 CFR 63.3900(b)
(17) 40 CFR 63.3901
(18) 40 CFR 63.3910(a)
(19) 40 CFR 63.3910(b)
(20) 40 CFR 63.3910(c)
(21) 40 CFR 63.3920(a)
(22) 40 CFR 63.3930
(23) 40 CFR 63.3931
(24) 40 CFR 63.3940
(25) 40 CFR 63.3941
(26) 40 CFR 63.3942
(27) 40 CFR 63.3950
(28) 40 CFR 63.3951
(29) 40 CFR 63.3952
(30) 40 CFR 63.3980
(31) 40 CFR 63.3981
(32) Table 2 to Subpart MMMM of Part 63

**Attachment A**

**Part 70 Operating Permit No. 157-37253-00089**

[Downloaded from http://www.in.gov/legislative/iac/title326.html on September 15, 2016]

**Rule 10. Automobile Refinishing**

**326 IAC 8-10-1 Applicability**

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11
Affected: IC 13-15; IC 13-17

Sec. 1. (a) All sections of this rule apply to any person who:
(1) Sells, offers for sale, or manufactures for sale refinishing coating or surface preparation products in the following:
(A) Clark, Floyd, Lake, or Porter County.
(B) All other counties on or after June 1, 2009.
(2) Owns, leases, operates, or controls a facility, as defined in 326 IAC 1-2-27, that refinishes motor vehicles, motor vehicle parts, motor vehicle components, or mobile equipment, as defined in section 2(25) and 2(26) of this rule, in the following:
(A) Clark, Floyd, Lake, or Porter County.
(B) All other counties on or after June 1, 2009.
(b) The following activities are exempt from this rule:
(1) Application of aerosol coating products.
(2) Graphic design application.
(3) Touch-up coating application.
(c) This rule does not apply to individuals who:
(1) own;
(2) lease;
(3) operate; or
(4) control;
a facility, as defined in 326 IAC 1-2-27, that refinishes three (3) or fewer motor vehicles per calendar year.
(d) The exemption provided by 326 IAC 8-2-9(b)(4) shall not exempt any facility from the requirements of this rule. *(Air Pollution Control Board; 326 IAC 8-10-1; filed Oct 3, 1995, 3:00 p.m.: 19 IR 194; filed Jul 14, 1998, 5:04 p.m.: 21 IR 4518; filed Apr 23, 1999, 2:12 p.m.: 22 IR 2856; filed Mar 27, 2009, 9:58 a.m.: 20090422-IR-326060603FRA)*

**326 IAC 8-10-2 Definitions**

Authority: IC 13-14-8; IC 13-17-3-4
Affected: IC 13-12

Sec. 2. The following definitions shall apply throughout this rule:
(1) "Adhesion promoter" means a coating:
(A) used to promote adhesion of a topcoat on surfaces such as:
(i) trim moldings;
(ii) door locks; and
(iii) door sills; or
(B) that provides adhesion to plastic substrates, where sanding is impracticable.
The term excludes primers, primer sealers, primer surfacers, and topcoats.
(2) "Aerosol coating products" means a mixture of:
(A) resins;
(B) pigments;
(C) liquid solvents; and
(D) gaseous propellants;
packaged in a disposable can for hand-held application.

(3) "Anti-glare/safety coating" means a low gloss coating formulated to eliminate or reduce glare for safety purposes on interior surfaces of a vehicle, as specified under the United States Department of Transportation Motor Vehicle Safety Standards.
(4) "Application station" means the part of an automobile refinishing facility where coatings are applied.
(5) "Automobile refinishing" means refinishing operations for after-market motor vehicles, motor vehicle parts, motor vehicle components, or mobile equipment performed in:
(A) auto body and repair shops;
(B) production paint shops;
(C) new car dealer repair and paint shops;
(D) fleet operation repair and paint shops; and
(E) any other facility that coats vehicles under the Standard Industrial Classification (SIC) code 7532 (top, body, and upholstery repair shops and paint shops).
The term includes dealer repair of vehicles damaged in transit.
(6) "Basecoat" means a pigmented topcoat that is the first topcoat applied as part of a multistage topcoat system.
(7) "Basecoat/clearcoat system" means a topcoat system composed of a pigmented basecoat portion and a transparent clearcoat portion. The VOC content of a basecoat/clearcoat system shall be calculated according to the following formula:

$$VOC_{Tbc/cc} = \frac{VOC_{bc} + 2\,VOC_{cc}}{3}$$

Where: $VOC_{Tbc/cc}$ = VOC content as applied of the basecoat (bc) and clearcoat (cc) systems.
$VOC_{bc}$ = VOC content as applied of any given basecoat.
$VOC_{cc}$ = VOC content as applied of any given clearcoat.
(8) "Catalyst" means a substance whose presence enhances the reaction between chemical compounds.
(9) "Clearcoat" means a topcoat that:
(A) contains no pigments or only transparent pigments; and
(B) is the final topcoat applied as a part of a multistage topcoat system.
(10) "Coating" means a protective, decorative, or functional material with VOC content greater than zero (0) used in automobile refinishing operations.
(11) "Color match" means the ability of a repair coating to blend in an existing coating so that color difference is not visible.
(12) "Container" means a vessel or tank used to store any of the following:
(A) Coatings.
(B) Surface preparation products.
(C) Solvents.
(D) Waste.
(13) "Disposed off site" means sending outside of the refinishing facility the used:
(A) coatings;
(B) surface preparation products;
(C) solvents;
(D) wastes.
(14) "Elastomeric materials" means topcoats and primers that are specifically formulated for application over flexible parts such as the following:
(A) Filler panels.
(B) Elastomeric bumpers.
(15) "Electrostatic application" means the application to a substrate of charged atomized paint droplets that are deposited by electrostatic attraction.
(16) "Equipment" means devices that are used to transfer or apply coating, surface preparation product, or solvent, such as, but not limited to, the following:
(A) Spray guns.
(B) Brushes.
(C) Nonrefillable aerosol cans.

(17) "Exempt compounds" means a nonphotochemically reactive hydrocarbon as defined in 326 IAC 1-2-48.
(18) "Gloss flatteners" means coatings that are formulated to provide low gloss to match original equipment manufacturer's (OEM) specifications.
(19) "Graphic design application" means the application of:
(A) logos;
(B) letters;
(C) numbers; and
(D) graphics;
to a painted surface, with or without the use of a template.
(20) "Ground support" means vehicles used in support of aircraft activities at airports.
(21) "Hardener" means an additive designed to promote a faster cure of coatings that cure by cross-linking of the resin components.
(22) "High-volume, low-pressure (HVLP) spray" means technology used to apply coating to a substrate by means of coating application equipment that 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.
(23) "Material safety data sheet" or "MSDS" means the chemical, physical, technical, and safety information document supplied by the manufacturer of the coating, solvent, or other chemical product, usually through the distribution network or retailers.
(24) "Midcoat" means a semitransparent topcoat that is the middle topcoat applied as part of a three (3) stage topcoat system.
(25) "Mobile equipment" means any equipment that may be driven or drawn on a roadway, including, but not limited to, the following:
(A) Truck bodies.
(B) Truck trailers.
(C) Cargo vaults.
(D) Utility bodies.
(E) Camper shells.
(F) Construction equipment, such as the following:
(i) Mobile cranes.
(ii) Bulldozers.
(iii) Concrete mixers.
(G) Farming equipment, such as the following:
(i) Tractors.
(ii) Plows.
(iii) Pesticide sprayers.
(H) Miscellaneous equipment, such as the following:
(i) Street cleaners.
(ii) Golf carts.
(iii) Ground support vehicles.
(iv) Tow motors.
(v) Fork lifts.
(26) "Motor vehicles" means the following:
(A) Automobiles.
(B) Buses.
(C) Trucks.
(D) Vans.
(E) Motor homes.
(F) Recreational vehicles.
(G) Motorcycles.
(27) "Multicolored topcoat" means a topcoat that:
(A) exhibits more than one (1) color;
(B) is packaged in a single container; and
(C) camouflages surface defects on areas of heavy use, such as cargo beds and other surfaces of trucks and other utility vehicles.

(28) "Multistage topcoat system" means any basecoat/clearcoat topcoat system or any three (3) stage topcoat system:
(A) manufactured as a system; and
(B) used as specified by the manufacturer.
(29) "Precoat" means any coating that is applied to bare metal primarily to deactivate the metal surface to provide corrosion resistance against a subsequent water-based primer.
(30) "Pretreatment wash primer" means the first coat applied to bare metal if solvent-based primers will be applied. This coating:
(A) contains a minimum of five-tenths percent (0.5%) acid by weight;
(B) is necessary to provide surface etching; and
(C) is applied directly to bare metal surfaces to provide corrosion resistance.
(31) "Primer" means any coating applied to a substrate prior to the application of a topcoat for the purpose of providing any of the following:
(A) Corrosion resistance.
(B) Adhesion of subsequent coatings.
(C) Color uniformity.
(32) "Primer sealer" means any coating applied to a substrate prior to the application of a topcoat to:
(A) provide:
(i) corrosion resistance;
(ii) adhesion of the topcoat; and
(iii) color uniformity; and
(B) promote the ability of an undercoat to resist penetration by the topcoat.
(33) "Primer surfacer" means any coating applied to a substrate prior to the application of a topcoat to:
(A) provide:
(i) corrosion resistance; and
(ii) adhesion of the topcoat; and
(B) promote a uniform surface by filling in surface imperfections.
(34) "Reducer" means the solvent added to dilute a coating, usually for the purpose of lowering the viscosity of a coating.
(35) "Refinishing" means any coating of motor vehicles, motor vehicle parts, motor vehicle components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and that is subsequent to the original coating applied at an original equipment manufacturing (OEM) plant coating assembly line.
(36) "Refinishing job" means for each motor vehicle or piece of mobile equipment any or all of the following:
(A) Surface preparation.
(B) Primer application.
(C) Primer surfacer application.
(D) Primer sealer application.
(E) Topcoat application.
(37) "Repair coating" means a coating that is used in the repair of:
(A) a motor vehicle;
(B) a motor vehicle part;
(C) a motor vehicle component; or
(D) mobile equipment.
(38) "Reused on site" means the reuse of a:
(A) coating;
(B) surface preparation product; or
(C) solvent;
in the refinishing facility.
(39) "Solvent" means a liquid containing VOCs that is used for:
(A) dissolving or dispersing constituents in a coating;
(B) adjusting the viscosity of a coating; or
(C) cleaning application stations, equipment, or containers.

(40) "Specialty coatings" means coatings that are necessary due to unusual and uncommon job performance requirements, including, but not limited to, the following:

(A) Weld-through primers.
(B) Adhesion promoters.
(C) Uniform finish blenders.
(D) Elastomeric materials.
(E) Gloss flatteners.
(F) Bright metal trim repair.
(G) Anti-glare/safety coatings.
(H) Multicolored topcoat.

(41) "Spot repairs" means repairs to motor vehicles in which the damaged area to be repaired is limited to only a portion of any given panel so that an entire panel need not be repaired.

(42) "Substrate" means the surface onto which coatings or surface preparation products are applied.

(43) "Surface preparation products" means products with VOC content greater than zero (0) used to remove:

(A) wax;
(B) tar;
(C) grease; and
(D) other undesirable contaminants;

from the surface to be refinished.

(44) "Three (3) or four (4) stage topcoat system" means a topcoat system composed of a pigmented basecoat portion, a semitransparent midcoat portion, and a transparent clearcoat portion. The VOC content of a three (3) stage coating system shall be calculated according to the following formula:

$$VOC_{T3\text{-}stage} = \frac{VOC_{bc} + VOC_{mc} + 2\,VOC_{cc}}{4}$$

Where: $VOC_{T3\text{-}stage}$ = VOC content as applied of the three (3) stage coating system.
$VOC_{bc}$ = VOC content as applied of any given basecoat.
$VOC_{mc}$ = VOC content as applied of any given midcoat.
$VOC_{cc}$ = VOC content as applied of any given clearcoat.

The VOC content of a four (4) stage system shall be calculated using the same formula specified for the three (3) stage coating system except that there would be an additional coating in the numerator, and the denominator would be five (5).

(45) "Topcoat" means the final film or series of films of coating applied to a substrate for the purpose of protection or appearance.

(46) "Touch-up coating" means a coating applied by brush or hand-held, nonrefillable aerosol cans to repair minor surface damage and imperfections.

(47) "Uniform finish blenders" means coatings that are utilized to ensure that the coatings applied during the refinishing of a vehicle imperceptibly blend in with the undamaged finish of repaired and undamaged portions of the:

(A) motor vehicle;
(B) motor vehicle parts;
(C) motor vehicle components; or
(D) mobile equipment.

(48) "VOC content" of coating or surface preparation products means the weight of VOC, less water, and less exempt compounds, per unit volume, of coating or surface preparation product.

(49) "VOC content as applied" of coatings or surface preparation products means the VOC content of the coating or surface preparation product, as applied to the substrate.

(50) "VOC content as supplied" means the VOC content of coating or surface preparation products, sold and delivered by the manufacturer to the user.

(51) "Volatile organic compound" or "VOC" has the meaning set forth in 326 IAC 1-2-90.

(52) "Weld-through primer" means primers that have the characteristics of withstanding high temperatures associated with welding without catching fire.

*(Air Pollution Control Board; 326 IAC 8-10-2; filed Oct 3, 1995, 3:00 p.m.: 19 IR 194; errata filed Dec 11, 1995, 3:00 p.m.: 19 IR 674; filed Mar 27, 2009, 9:58 a.m.: 20090422-IR-326060603FRA)*

**326 IAC 8-10-3 Requirements**

Authority: IC 13-14-8; IC 13-17-3-4
Affected: IC 13-12

Sec. 3. (a) Each manufacturer or distributor of coatings or surface preparation products manufactured or distributed for use in Indiana shall comply with the following:

(1) The VOC content limits listed in section 4(a) of this rule.
(2) The compliance procedures outlined in section 6(a) of this rule.

(b) Any person commercially providing refinishing coatings or surface preparation products for use in Indiana that were manufactured after January 11, 1999, shall comply with the following:

(1) The VOC content limits listed in section 4(a) of this rule.
(2) The compliance procedures outlined in section 6(b) of this rule.

(c) Any person applying any coating or surface preparation product in Indiana shall comply with the following:

(1) The provisions of section 4 of this rule.
(2) The work practice standards of section 5 of this rule.
(3) The compliance procedures outlined in section 6(c) of this rule.
(4) The test procedures in section 7 of this rule.
(5) The record keeping and reporting provisions in section 9 of this rule.

(d) No person shall solicit or require any refinishing facility subject to this rule to use a refinishing coating or surface preparation product that does not comply with the VOC content limits listed in section 4(a) of this rule. *(Air Pollution Control Board;326 IAC 8-10-3; filed Oct 3, 1995, 3:00 p.m.: 19 IR 197; filed Apr 23, 1999, 2:12 p.m.: 22 IR 2856; filed Mar 27, 2009, 9:58 a.m.: 20090422-IR-326060603FRA)*

**326 IAC 8-10-4 Means to limit volatile organic compound emissions**

Authority: IC 13-14-8; IC 13-17-3-4
Affected: IC 13-12

Sec. 4. (a) The owner or operator of a refinishing facility subject to this rule shall limit emissions of VOCs from refinishing operations by using coatings or surface preparation products with VOC limits based on the VOC content as applied. The VOC content shall not exceed the following limits:

| Coating Category | VOC Limit | |
|---|---|---|
| | grams liter | lbs gallon |
| Pretreatment wash primer | 780 | 6.5 |
| Precoat | 660 | 5.5 |
| Primer/primer surfacer | 576 | 4.8 |
| Primer sealer | 552 | 4.6 |
| Topcoat | | |
| Single and two stage | 600 | 5.0 |
| Three and four stage | 624 | 5.2 |
| Multicolored topcoat | 680 | 5.7 |
| Specialty | 840 | 7.0 |

For surface preparation products:

| Type of Substrate | VOC Limit | |
|---|---|---|
| | grams liter | lbs gallon |
| Plastic | 780 | 6.5 |
| Other | 168 | 1.4 |

(b) Application of all specialty coatings except anti-glare/safety coatings shall not exceed five percent (5%) by volume of all coatings applied on a monthly basis. *(Air Pollution Control Board; 326 IAC 8-10-4; filed Oct 3, 1995, 3:00 p.m.: 19 IR 197; filed Mar 27, 2009, 9:58 a.m.: 20090422-IR-326060603FRA)*

**326 IAC 8-10-5 Work practice standards**

Authority: IC 13-14-8; IC 13-17-3-4
Affected: IC 13-12

Sec. 5. (a) The owner or operator of a refinishing facility subject to this rule shall ensure that spray guns are cleaned in an enclosed device that:

(1) is closed during:

(A) spray gun equipment cleaning operations except when depositing and removing objects to be cleaned; and

(B) noncleaning operations with the exception of the maintenance and repair of the cleaning device itself; and

(2) recirculates cleaning solvent during the cleaning operation so that the solvent is available for reuse on site or for disposal off site.

The cleaning device shall be operated and maintained according to the manufacturer's recommendations. The owner or operator of the refinishing facility subject to this rule shall have the cleaning device manufacturer's recommendations available for inspection upon request by the department or the U.S. EPA.

(b) The owner or operator of a refinishing facility subject to this rule shall use one (1) or a combination of the following equipment for coating application:

(1) Electrostatic equipment.

(2) High-volume, low-pressure (HVLP) spray equipment.

(3) Any other coating application equipment that has been demonstrated, by the owner or operator, to the satisfaction of the department to be capable of achieving at least sixty-five percent (65%) transfer efficiency. The owner or operator must submit sufficient data for the department to be able to determine the accuracy of the transfer efficiency claims.

Coating application equipment shall be operated and maintained according to the manufacturer's recommendations. The owner or operator shall have the manufacturer's recommendations available for inspection upon request by the department or the U.S. EPA.

(c) The owner or operator of a refinishing facility subject to this rule shall implement housekeeping practices, which include the following:

(1) All:

(A) paper;

(B) cloth;

(C) plastic; or

(D) other materials;

used for activities such as surface preparation and surface cleanup that have been contaminated with coatings or solvent shall be stored in closed containers until disposed of off site. The containers shall remain closed unless being filled or emptied.

(2) Except when actively or directly applying, store in closed containers, all fresh or used refinishing materials including, but not limited to, the following:

(A) Solvents.

(B) Coatings.

(C) VOC-containing additives and materials.

(D) VOC-containing waste materials.

(3) Storage containers and equipment shall be free from:

(A) cracks;

(B) holes; and

(C) leaks.

(4) Waste coatings and used automotive fluids shall be stored in closed containers.

(5) Equipment cleanup shall be performed with methods that minimize the use of solvents. Reasonable efforts shall be made to reclaim the bulk of used solvents. No cleaning shall be performed by direct spraying of solvents into the atmosphere.

(6) Effort shall be made to schedule operations of a similar nature to significantly reduce total VOC material consumption.

(7) Coatings or surface preparation products shall be applied in a manner that minimizes overspray.

(d) The owner or operator of a refinishing facility subject to this rule shall comply with the training requirements of this rule as follows:

(1) Develop a written training program. The training program may include training provided by the manufacturer or supplier and shall include written procedures and hands-on demonstration, as appropriate, on the following topics:

(A) Identification of appropriate coatings or surface preparation products.

(B) Preparation of coatings or surface preparation products according to coating manufacturer, distributor, or owner or operator's recommendations.

(C) Application of coatings or surface preparation products or organic solvents using techniques that minimize their usage.

(D) Operation and maintenance of spray gun cleaning equipment to minimize evaporation of organic solvents to the atmosphere.

(E) Work practice standards established in subsection (c).

(F) Procedures to:

(i) gather;

(ii) record;

(iii) monitor; and

(iv) report;

data in accordance with section 9 of this rule.

(2) Provide annual refresher training prior to May 1 of each year to any employee performing one (1) or more of the activities listed in subdivision (1). The training shall be appropriate to the job responsibilities of the employee.

(3) Any person may perform one (1) or more activities addressed in subdivision (1), for not more than one hundred eighty (180) days, notwithstanding the requirement of subdivision (2), provided each of the following:

(A) The untrained person works under the supervision of a person who meets the training requirements of subdivision (2).

(B) The owner or operator keeps the following records:

(i) The date the person was assigned to the activity.

(ii) The date training was completed.

(iii) The name of the person providing the supervision.

(4) The owner or operator of the refinishing operation subject to this rule shall keep records of the training program. The records shall consist of the following:

(A) The date training was completed.

(B) A list of persons, by name and activity and the topics in which they have been trained.

(C) A statement signed by the trainer certifying each trainee who satisfactorily has completed training in the topics and is proficient in the procedures specified in subdivision (1).

*(Air Pollution Control Board; 326 IAC 8-10-5; filed Oct 3, 1995, 3:00 p.m.: 19 IR 198; errata filed Dec 11, 1995, 3:00 p.m.: 19 IR 674; filed Jul 14, 1998, 5:04 p.m.: 21 IR 4518; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1568; filed Mar 27, 2009, 9:58 a.m.: 20090422-IR-326060603FRA)*

**326 IAC 8-10-6 Compliance procedures**

Authority: IC 13-14-8; IC 13-17-3-4
Affected: IC 13-12

Sec. 6. (a) Each manufacturer of coatings or surface preparation products who supplies coatings or surface preparation products to a distributor, retailer, or owner or operator of a refinishing facility subject to this rule shall, for each coating or surface preparation product supplied, keep records of and provide the owner or operator of a refinishing facility with a written record or document containing the following coating or surface preparation product information:

(1) Product description.

(2) Date of manufacture, date code, or batch number.

(3) Thinning instructions.

(4) The VOC content in grams per liter and pounds per gallon, as packaged or as supplied:
(A) for single coat products, the VOC as applied after any thinning recommended by the manufacturer; or
(B) for multistage systems in which the VOC as applied is dependent upon the VOC content of a combination of products with varying VOC levels, provide:
(i) a list of the maximum allowable packaged VOC for the individual layers;
(ii) a comprehensive chart of color combinations and the as-applied VOC content; or
(iii) a simple to use formula or grid for the end user to calculate the as-applied VOC content of their multistage system.
(5) A statement that the coating is, or is not, in compliance with the VOC limits in section 4(a) of this rule.
(6) The:
(A) name;
(B) address;
(C) telephone number; and
(D) signature;
of the person purchasing the product.

(b) Any person who is engaged in commercially providing coatings or surface preparation products in Indiana shall provide to the recipient and shall keep the following records of all coatings or surface preparation products supplied. The records shall include the following:
(1) The product description.
(2) The amount supplied.
(3) The date supplied, date code, or batch number.
(4) The VOC content in grams per liter and pounds per gallon, as packaged or as supplied:
(A) for single coat products, the VOC as applied after any thinning recommended by the manufacturer; or
(B) for multistage systems in which the VOC as applied is dependent upon the VOC content of a combination of products with varying VOC levels, provide:
(i) a list of the maximum allowable packaged VOC for the individual layers;
(ii) a comprehensive chart of color combinations and their as-applied VOC content; or
(iii) a simple to use formula or grid for the end user to calculate the as-applied VOC content of their multistage system.
(5) The:
(A) name;
(B) address;
(C) telephone number; and
(D) signature;
of the person purchasing the product.

(c) The owner or operator of a refinishing facility subject to this rule shall submit to the department a statement signed by a responsible official of the facility certifying that the facility has acquired and will continuously employ coatings or surface preparation products meeting the VOC limits of section 4(a) of this rule. *(Air Pollution Control Board; 326 IAC 8-10-6; filed Oct 3, 1995, 3:00 p.m.: 19 IR 199; filed Jul 14, 1998, 5:04 p.m.: 21 IR 4519; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1568; filed Mar 27, 2009, 9:58 a.m.: 20090422-IR-326060603FRA)*

**326 IAC 8-10-7 Test procedures**

Authority: IC 13-14-8; IC 13-17-3-4
Affected: IC 13-12

Sec. 7. (a) Owners or operators of refinishing facilities subject to this rule shall be subject to the applicable test methods and requirements of 326 IAC 8-1-4 and 40 CFR 60, Appendix A*.

(b) Owners or operators may use data provided with coatings or surface preparation products formulation information such as the:
(1) container label;
(2) product data sheet; and
(3) MSDS sheet;

in order to comply with sections 4 and 9(a) of this rule. The department and U.S. EPA may require VOC content determination and verification of any coating or surface preparation product using 40 CFR 60, Appendix A, Method 24*. In the event of any inconsistency between 40 CFR 60, Appendix A, Method 24 and formulation data, 40 CFR 60, Appendix A, Method 24 shall govern.

*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Board; 326 IAC 8-10-7; filed Oct 3, 1995, 3:00 p.m.: 19 IR 199; errata filed Dec 11, 1995, 3:00 p.m.: 19 IR 674; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1568; filed Aug 26, 2004, 11:30 a.m.: 28 IR 58; filed Mar 27, 2009, 9:58 a.m.:20090422-IR-326060603FRA)*

**326 IAC 8-10-8 Control system operation, maintenance, and monitoring**

Authority: IC 13-14-8; IC 13-17-3-4
Affected: IC 13-12

Sec. 8. *(Repealed by Air Pollution Control Board; filed Mar 27, 2009, 9:58 a.m.: 20090422-IR-326060603FRA)*

**326 IAC 8-10-9 Record keeping and reporting**

Authority: IC 13-14-8; IC 13-17-3-4
Affected: IC 13-12

Sec. 9. (a) Owners or operators of refinishing facilities subject to the provisions of section 4(a) of this rule shall keep records of the following:

(1) For each batch of coating mixed or refinishing job performed, the following information:
(A) Batch or job identification number or name.
(B) Date batch made or job performed.
(C) Coating category, consistent with the coating categories in section 4(a) of this rule.
(D) Coating manufacturer's name and identification number.
(E) Either the quantity used in making the mix or the mix ratio used.
(F) VOC content as supplied or packaged.
(G) Manufacturer's name and identification number of added components, such as the following:
(i) Catalysts.
(ii) Reducers.
(iii) Hardeners.
(H) Either the quantity of components added or the mix ratio used.

(2) For each surface preparation product used, the following information:
(A) Manufacturer's name and identification number.
(B) Substrate to which the product is applied.
(C) VOC content as supplied per calendar month for:
(i) number of containers used; and
(ii) volume of each container in suitable units, such as quarts, gallons, pints, other similar units, and the ratio of components added.

(3) Documents such as MSDS, or product or other data sheets for a period of three (3) years following use of the product. MSDS or product or other data sheets may be used by the U.S. EPA or the department to verify the VOC content, as supplied, provided by the coating manufacturer, distributor, or supplier, of the coatings or surface preparation products.

(b) Owners or operators of refinishing facilities subject to this rule shall maintain the following records:

(1) Records of training programs as required in section 5(d) of this rule.
(2) Initial compliance statements as required in section 6(c) of this rule.
(3) Records as required in this section.

(c) Owners or operators of refinishing facilities subject to this rule shall:

(1) maintain all records for a minimum of three (3) years; and

(2) make records available to the department and the U.S. EPA upon request.

(d) Failure to maintain records required by subsections (a) and (b) shall constitute a violation of this rule for each day records are not maintained.

(e) Owners or operators of refinishing facilities subject to this rule shall report within thirty (30) days to the department the following:

(1) Any incidence in which noncompliant coating was used.

(2) The reasons for use of the noncompliant coating.

(3) Corrective actions taken.

*(Air Pollution Control Board; 326 IAC 8-10-9; filed Oct 3, 1995, 3:00 p.m.: 19 IR 200; errata filed Dec 11, 1995, 3:00 p.m.: 19 IR 674; filed Jul 14, 1998, 5:04 p.m.: 21 IR 4520; filed Mar 27, 2009, 9:58 a.m.: 20090422-IR-326060603FRA)*

## Attachment B

## Part 70 Operating Permit No: 157-37253-00089

[Downloaded from the eCFR on May 13, 2013]

**Electronic Code of Federal Regulations**

**Title 40: Protection of Environment**

**PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES**

**Subpart MMMM—National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products**

Source: 69 FR 157, Jan. 2, 2004, unless otherwise noted.

**What This Subpart Covers**

**§ 63.3880 What is the purpose of this subpart?**

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous metal parts and products surface coating facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

**§ 63.3881 Am I subject to this subpart?**

(a) Miscellaneous metal parts and products include, but are not limited to, metal components of the following types of products as well as the products themselves: motor vehicle parts and accessories, bicycles and sporting goods, recreational vehicles, extruded aluminum structural components, railroad cars, heavy duty trucks, medical equipment, lawn and garden equipment, electronic equipment, magnet wire, steel drums, industrial machinery, metal pipes, and numerous other industrial, household, and consumer products. Except as provided in paragraph (c) of this section, the source category to which this subpart applies is the surface coating of any miscellaneous metal parts or products, as described in paragraph (a)(1) of this section, and it includes the subcategories listed in paragraphs (a)(2) through (6) of this section.

(1) Surface coating is the application of coating to a substrate using, for example, spray guns or dip tanks. When application of coating to a substrate occurs, then surface coating also includes associated activities, such as surface preparation, cleaning, mixing, and storage. However, these activities do not comprise surface coating if they are not directly related to the application of the coating. Coating application with handheld, non-refillable aerosol containers, touch-up markers, marking pens, or the application of paper film or plastic film which may be pre-coated with an adhesive by the manufacturer are not coating operations for the purposes of this subpart.

(2) The general use coating subcategory includes all surface coating operations that are not high performance, magnet wire, rubber-to-metal, or extreme performance fluoropolymer coating operations.

(3) The high performance coating subcategory includes surface coating operations that are performed using coatings that meet the definition of high performance architectural coating or high temperature coating in § 63.3981.

(4) The magnet wire coating subcategory includes surface coating operations that are performed using coatings that meet the definition of magnet wire coatings in § 63.3981.

(5) The rubber-to-metal coatings subcategory includes surface coating operations that are performed using coatings that meet the definition of rubber-to-metal coatings in § 63.3981.

(6) The extreme performance fluoropolymer coatings subcategory includes surface coating operations that are performed using coatings that meet the definition of extreme performance fluoropolymer coatings in § 63.3981.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in § 63.3882, that uses 946 liters (250 gallons (gal)) per year, or more, of coatings that contain hazardous air pollutants (HAP) in the surface coating of miscellaneous metal parts and products defined in paragraph (a) of this section; and that is a major source, is located at a major source, or is part of a major source of emissions of HAP. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year. You do not need to include coatings that meet the definition of non-HAP coating contained in § 63.3981 in determining whether you use 946 liters (250 gal) per year, or more, of coatings in the surface coating of miscellaneous metal parts and products.

(c) This subpart does not apply to surface coating or a coating operation that meets any of the criteria of paragraphs (c)(1) through (17) of this section.

(1) A coating operation conducted at a facility where the facility uses only coatings, thinners and other additives, and cleaning materials that contain no organic HAP, as determined according to § 63.3941(a).

(2) Surface coating operations that occur at research or laboratory facilities, or is part of janitorial, building, and facility maintenance operations, or that occur at hobby shops that are operated for noncommercial purposes.

(3) Coatings used in volumes of less than 189 liters (50 gal) per year, provided that the total volume of coatings exempt under this paragraph does not exceed 946 liters (250 gal) per year at the facility.

(4) The surface coating of metal parts and products performed on-site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State) or the National Aeronautics and Space Administration, or the surface coating of military munitions manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such State).

(5) Surface coating where plastic is extruded onto metal wire or cable or metal parts or products to form a coating.

(6) Surface coating of metal components of wood furniture that meet the applicability criteria for wood furniture manufacturing (subpart JJ of this part).

(7) Surface coating of metal components of large appliances that meet the applicability criteria for large appliance surface coating (subpart NNNN of this part).

(8) Surface coating of metal components of metal furniture that meet the applicability criteria for metal furniture surface coating (subpart RRRR of this part).

(9) Surface coating of metal components of wood building products that meet the applicability criteria for wood building products surface coating (subpart QQQQ of this part).

(10) Surface coating of metal components of aerospace vehicles that meet the applicability criteria for aerospace manufacturing and rework (40 CFR part 63, subpart GG).

(11) Surface coating of metal parts intended for use in an aerospace vehicle or component using specialty coatings as defined in appendix A to subpart GG of this part.

(12) Surface coating of metal components of ships that meet the applicability criteria for shipbuilding and ship repair (subpart II of this part).

(13) Surface coating of metal using a web coating process that meets the applicability criteria for paper and other web coating (subpart JJJJ of this part).

(14) Surface coating of metal using a coil coating process that meets the applicability criteria for metal coil coating (subpart SSSS of this part).

(15) Surface coating of boats or metal parts of boats (including, but not limited to, the use of assembly adhesives) where the facility meets the applicability criteria for boat manufacturing facilities (subpart VVVV of this part), except where the surface coating of the boat is a metal coating operation performed on personal watercraft or parts of personal watercraft. This subpart does apply to metal coating operations performed on personal watercraft and parts of personal watercraft.

(16) Surface coating of assembled on-road vehicles that meet the applicability criteria for the assembled on-road vehicle subcategory in plastic parts and products surface coating (40 CFR part 63, subpart PPPP).

(17) Surface coating of metal components of automobiles and light-duty trucks that meets the applicability criteria in § 63.3082(b) for the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) at a facility that meets the applicability criteria in § 63.3081(b).

(d) If your facility meets the applicability criteria in § 63.3081(b) of the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII), and you perform surface coating of metal parts or products that meets both the applicability criteria in § 63.3082(c) and the applicability criteria of the Surface Coating of Miscellaneous Metal Parts and Products (40 CFR part 63, subpart MMMM), then for the surface coating of any or all of your metal parts or products that meets the applicability criteria in § 63.3082(c), you may choose to comply with the requirements of subpart IIII of this part in lieu of complying with the Surface Coating of Miscellaneous Metal Parts and Products NESHAP. Surface coating operations on metal parts or products (e.g., parts for motorcycles or lawnmowers) not intended for use in automobiles, light-duty trucks, or other motor vehicles as defined in § 63.3176 cannot be made part of your affected source under subpart IIII of this part.

(e) If you own or operate an affected source that meets the applicability criteria of this subpart and at the same facility you also perform surface coating that meets the applicability criteria of any other final surface coating NESHAP in this part you may choose to comply as specified in paragraph (e)(1), (2), or (3) of this section.

(1) You may have each surface coating operation that meets the applicability criteria of a separate NESHAP comply with that NESHAP separately.

(2) You may comply with the emission limitation representing the predominant surface coating activity at your facility, as determined according to paragraphs (e)(2)(i) and (ii) of this section. However, you may not establish high performance, rubber-to-metal, or extreme performance fluoropolymer coating operations as the predominant activity. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining the predominant surface coating activity at your facility.

(i) If a surface coating operation accounts for 90 percent or more of the surface coating activity at your facility (that is, the predominant activity), then compliance with the emission limitations of the predominant activity for all surface coating operations constitutes compliance with these and other applicable surface coating NESHAP. In determining predominant activity, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of coating activities need not be included in the determination of predominant activity but must be included in the compliance calculation.

(ii) You must use liters (gal) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content ( *e.g.,* design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by § 63.3910(b). You must also determine predominant activity annually and include the determination in the next semi-annual compliance report required by § 63.3920(a).

(3) You may comply with a facility-specific emission limit calculated from the relative amount of coating activity that is subject to each emission limit. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. The procedures for calculating the facility-specific emission limit are specified in § 63.3890. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of other surface coating NESHAP and constitute more than 1 percent of total coating activities at your facility. You must not consider any surface coating activity that is subject to the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR part 63, subpart IIII) in determining a facility-specific emission limit for your facility. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of total coating activities need not be included in the calculation of the facility-specific emission limit but must be included in the compliance calculations.

[69 FR 157, Jan. 2, 2004, as amended at 69 FR 22660, Apr. 26, 2004; 71 FR 76927, Dec. 22, 2006]

**§ 63.3882 What parts of my plant does this subpart cover?**

(a) This subpart applies to each new, reconstructed, and existing affected source within each of the four subcategories listed in § 63.3881(a).

(b) The affected source is the collection of all of the items listed in paragraphs (b)(1) through (4) of this section that are used for surface coating of miscellaneous metal parts and products within each subcategory.

(1) All coating operations as defined in § 63.3981;

(2) All storage containers and mixing vessels in which coatings, thinners and/or other additives, and cleaning materials are stored or mixed;

(3) All manual and automated equipment and containers used for conveying coatings, thinners and/or other additives, and cleaning materials; and

(4) All storage containers and all manual and automated equipment and containers used for conveying waste materials generated by a coating operation.

(c) An affected source is a new affected source if you commenced its construction after August 13, 2002 and the construction is of a completely new miscellaneous metal parts and products surface coating facility where previously no miscellaneous metal parts and products surface coating facility had existed.

(d) An affected source is reconstructed if it meets the criteria as defined in § 63.2.

(e) An affected source is existing if it is not new or reconstructed.

**§ 63.3883 When do I have to comply with this subpart?**

The date by which you must comply with this subpart is called the compliance date. The compliance date for each type of affected source is specified in paragraphs (a) through (c) of this section. The compliance date begins the initial compliance period during which you conduct the initial compliance demonstration described in §§ 63.3940, 63.3950, and 63.3960.

(a) For a new or reconstructed affected source, the compliance date is the applicable date in paragraph (a)(1) or (2) of this section:

(1) If the initial startup of your new or reconstructed affected source is before January 2, 2004, the compliance date is January 2, 2004.

(2) If the initial startup of your new or reconstructed affected source occurs after January 2, 2004, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is the date 3 years after January 2, 2004.

(c) For an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP emissions, the compliance date is specified in paragraphs (c)(1) and (2) of this section.

(1) For any portion of the source that becomes a new or reconstructed affected source subject to this subpart, the compliance date is the date of initial startup of the affected source or January 2, 2004, whichever is later.

(2) For any portion of the source that becomes an existing affected source subject to this subpart, the compliance date is the date 1 year after the area source becomes a major source or 3 years after January 2, 2004, whichever is later.

(d) You must meet the notification requirements in § 63.3910 according to the dates specified in that section and in subpart A of this part. Some of the notifications must be submitted before the compliance dates described in paragraphs (a) through (c) of this section.

**Emission Limitations**

**§ 63.3890 What emission limits must I meet?**

(a) For a new or reconstructed affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (a)(1) through (5) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in § 63.3941, § 63.3951, or § 63.3961.

(1) For each new general use coating affected source, limit organic HAP emissions to no more than 0.23 kilograms (kg) (1.9 pound (lb)) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(2) For each new high performance coating affected source, limit organic HAP emissions to no more than 3.3 kg (27.5 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(3) For each new magnet wire coating affected source, limit organic HAP emissions to no more than 0.050 kg (0.44 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(4) For each new rubber-to-metal coating affected source, limit organic HAP emissions to no more than 0.81 kg (6.8 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(5) For each new extreme performance fluoropolymer coating affected source, limit organic HAP emissions to no more than 1.5 kg (12.4 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(b) For an existing affected source, you must limit organic HAP emissions to the atmosphere from the affected source to the applicable limit specified in paragraphs (b)(1) through (5) of this section, except as specified in paragraph (c) of this section, determined according to the requirements in § 63.3941, § 63.3951, or § 63.3961.

(1) For each existing general use coating affected source, limit organic HAP emissions to no more than 0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(2) For each existing high performance coating affected source, limit organic HAP emissions to no more than 3.3 kg (27.5 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(3) For each existing magnet wire coating affected source, limit organic HAP emissions to no more than 0.12 kg (1.0 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(4) For each existing rubber-to-metal coating affected source, limit organic HAP emissions to no more than 4.5 kg (37.7 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(5) For each existing extreme performance fluoropolymer coating affected source, limit organic HAP emissions to no more than 1.5 kg (12.4 lbs) organic HAP per liter (gal) coating solids used during each 12-month compliance period.

(c) If your facility's surface coating operations meet the applicability criteria of more than one of the subcategory emission limits specified in paragraphs (a) or (b) of this section, you may comply separately with each subcategory emission limit or comply using one of the alternatives in paragraph (c)(1) or (2) of this section.

(1) If the general use or magnet wire surface coating operations subject to only one of the emission limits specified in paragraphs (a)(1), (3), (b)(1), or (3) of this section account for 90 percent or more of the surface coating activity at your facility ( *i.e.,* it is the predominant activity at your facility), then compliance with that one emission limitations in this subpart for all surface coating operations constitutes compliance with the other applicable emission limits. You must use liters (gal) of solids used as a measure of relative surface coating activity over a representative period of operation. You may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content ( *e.g.,* design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The use of parameters other than coating consumption and volume solids content must be approved by the Administrator. You may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by the Administrator. You must determine the predominant activity at your facility and submit the results of that determination with the initial notification required by § 63.3910(b). Additionally, you must determine the facility's predominant activity annually and include the determination in the next semi-annual compliance report required by § 63.3920(a).

(2) You may calculate and comply with a facility-specific emission limit as described in paragraphs (c)(2)(i) through (iii) of this section. If you elect to comply using the facility-specific emission limit alternative, then compliance with the facility-specific emission limit and the emission limitations in this subpart for all surface coating operations constitutes compliance with this and other applicable surface coating NESHAP. In calculating a facility-specific emission limit, you must include coating activities that meet the applicability criteria of the other subcategories and constitute more than 1 percent of total coating activities. Coating activities that meet the applicability criteria of other surface coating NESHAP but comprise less than 1 percent of coating activities need not be included in the determination of predominant activity but must be included in the compliance calculation.

(i) You are required to calculate the facility-specific emission limit for your facility when you submit the notification of compliance status required in § 63.3910(c), and on a monthly basis afterward using the coating data for the relevant 12-month compliance period.

(ii) Use Equation 1 of this section to calculate the facility-specific emission limit for your surface coating operations for each 12-month compliance period.

$$\textit{Facility-Specific}\ \text{Emission Limit} = \frac{\sum_{i=1}^{n}(\text{Limit}_i)(Solids_i)}{\sum_{i=1}^{n}(Solids_i)} \qquad (Eq.\ 1)$$

Where:

Facility-specific emission limit = Facility-specific emission limit for each 12-month compliance period, kg (lb) organic HAP per kg (lb) coating solids used.

$Limit_i$ = The new source or existing source emission limit applicable to coating operation, i, included in the facility-specific emission limit, converted to kg (lb) organic HAP per kg (lb) coating solids used, if the emission limit is not already in those units. All emission limits included in the facility-specific emission limit must be in the same units.

$Solids_i$ = The liters (gal) of solids used in coating operation, i, in the 12-month compliance period that is subject to emission limit, i. You may estimate the volume of coating solids used from parameters other than coating consumption and volume solids content ( *e.g.,* design specifications for the parts or products coated and the number

of items produced). The use of parameters other than coating consumption and volume solids content must be approved by the Administrator.

n = The number of different coating operations included in the facility-specific emission limit.

(iii) If you need to convert an emission limit in another surface coating NESHAP from kg (lb) organic HAP per kg (lb) coating solids used to kg (lb) organic HAP per liter (gal) coating solids used, you must use the default solids density of 1.26 kg solids per liter coating solids (10.5 lb solids per gal solids).

**§ 63.3891 What are my options for meeting the emission limits?**

You must include all coatings (as defined in § 63.3981), thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in § 63.3890. To make this determination, you must use at least one of the three compliance options listed in paragraphs (a) through (c) of this section. You may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. You may use different compliance options for different coating operations, or at different times on the same coating operation. You may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, you may not use different compliance options at the same time on the same coating operation. If you switch between compliance options for any coating operation or group of coating operations, you must document this switch as required by § 63.3930(c), and you must report it in the next semiannual compliance report required in § 63.3920.

(a) *Compliant material option.* Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in § 63.3890, and that each thinner and/or other additive, and cleaning material used contains no organic HAP. You must meet all the requirements of §§ 63.3940, 63.3941, and 63.3942 to demonstrate compliance with the applicable emission limit using this option.

(b) *Emission rate without add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in § 63.3890, calculated as a rolling 12-month emission rate and determined on a monthly basis. You must meet all the requirements of §§ 63.3950, 63.3951, and 63.3952 to demonstrate compliance with the emission limit using this option.

(c) *Emission rate with add-on controls option.* Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), and the emissions reductions achieved by emission capture systems and add-on controls, the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in § 63.3890, calculated as a rolling 12-month emission rate and determined on a monthly basis. If you use this compliance option, you must also demonstrate that all emission capture systems and add-on control devices for the coating operation(s) meet the operating limits required in § 63.3892, except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3961(j), and that you meet the work practice standards required in § 63.3893. You must meet all the requirements of §§ 63.3960 through 63.3968 to demonstrate compliance with the emission limits, operating limits, and work practice standards using this option.

**§ 63.3892 What operating limits must I meet?**

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any operating limits.

(b) For any controlled coating operation(s) on which you use the emission rate with add-on controls option, except those for which you use a solvent recovery system and conduct a liquid-liquid material balance according to § 63.3961(j), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and control systems on the coating operation(s) for which you use this option, and you must establish the operating limits during the performance test according to the requirements in § 63.3967. You must meet the operating limits at all times after you establish them.

(c) If you use an add-on control device other than those listed in Table 1 to this subpart, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under § 63.8(f).

**§ 63.3893 What work practice standards must I meet?**

(a) For any coating operation(s) on which you use the compliant material option or the emission rate without add-on controls option, you are not required to meet any work practice standards.

(b) If you use the emission rate with add-on controls option, you must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners and/or other additives, and cleaning materials used in, and waste materials generated by the controlled coating operation(s) for which you use this option; or you must meet an alternative standard as provided in paragraph (c) of this section. The plan must specify practices and procedures to ensure that, at a minimum, the elements specified in paragraphs (b)(1) through (5) of this section are implemented.

(1) All organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be stored in closed containers.

(2) Spills of organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be minimized.

(3) Organic-HAP-containing coatings, thinners and/or other additives, cleaning materials, and waste materials must be conveyed from one location to another in closed containers or pipes.

(4) Mixing vessels which contain organic-HAP-containing coatings and other materials must be closed except when adding to, removing, or mixing the contents.

(5) Emissions of organic HAP must be minimized during cleaning of storage, mixing, and conveying equipment.

(c) As provided in § 63.6(g), we, the U.S. Environmental Protection Agency, may choose to grant you permission to use an alternative to the work practice standards in this section.

**General Compliance Requirements**

**§ 63.3900 What are my general requirements for complying with this subpart?**

(a) You must be in compliance with the emission limitations in this subpart as specified in paragraphs (a)(1) and (2) of this section.

(1) Any coating operation(s) for which you use the compliant material option or the emission rate without add-on controls option, as specified in § 63.3891(a) and (b), must be in compliance with the applicable emission limit in § 63.3890 at all times.

(2) Any coating operation(s) for which you use the emission rate with add-on controls option, as specified in § 63.3891(c), must be in compliance with the emission limitations as specified in paragraphs (a)(2)(i) through (iii) of this section.

(i) The coating operation(s) must be in compliance with the applicable emission limit in § 63.3890 at all times except during periods of startup, shutdown, and malfunction.

(ii) The coating operation(s) must be in compliance with the operating limits for emission capture systems and add-on control devices required by § 63.3892 at all times except during periods of startup, shutdown, and malfunction, and except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3961(j).

(iii) The coating operation(s) must be in compliance with the work practice standards in § 63.3893 at all times.

(b) You must always operate and maintain your affected source, including all air pollution control and monitoring equipment you use for purposes of complying with this subpart, according to the provisions in § 63.6(e)(1)(i).

(c) If your affected source uses an emission capture system and add-on control device, you must develop a written startup, shutdown, and malfunction plan according to the provisions in § 63.6(e)(3). The plan must address the startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control device. The plan must also address any coating operation equipment that may cause increased emissions or that would affect capture efficiency if the process equipment malfunctions, such as conveyors that move parts among enclosures.

[69 FR 157, Jan. 2, 2004, as amended at 71 FR 20465, Apr. 20, 2006]

**§ 63.3901 What parts of the General Provisions apply to me?**

Table 2 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

**Notifications, Reports, and Records**

**§ 63.3910 What notifications must I submit?**

(a) *General.* You must submit the notifications in §§ 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to you by the dates specified in those sections, except as provided in paragraphs (b) and (c) of this section.

(b) *Initial Notification.* You must submit the initial notification required by § 63.9(b) for a new or reconstructed affected source no later than 120 days after initial startup or 120 days after January 2, 2004, whichever is later. For an existing affected source, you must submit the initial notification no later than 1 year after January 2, 2004. If you are using compliance with the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (subpart IIII of this part) as provided for under § 63.3881(d) to constitute compliance with this subpart for any or all of your metal parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those metal parts coating operations. If you are complying with another NESHAP that constitutes the predominant activity at your facility under § 63.3881(e)(2) to constitute compliance with this subpart for your metal parts coating operations, then you must include a statement to this effect in your initial notification, and no other notifications are required under this subpart in regard to those metal parts coating operations.

(c) *Notification of compliance status.* You must submit the notification of compliance status required by § 63.9(h) no later than 30 calendar days following the end of the initial compliance period described in §§ 63.3940, 63.3950, or 63.3960 that applies to your affected source. The notification of compliance status must contain the information specified in paragraphs (c)(1) through (11) of this section and in § 63.9(h).

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of the report and beginning and ending dates of the reporting period. The reporting period is the initial compliance period described in §§ 63.3940, 63.3950, or 63.3960 that applies to your affected source.

(4) Identification of the compliance option or options specified in § 63.3891 that you used on each coating operation in the affected source during the initial compliance period.

(5) Statement of whether or not the affected source achieved the emission limitations for the initial compliance period.

(6) If you had a deviation, include the information in paragraphs (c)(6)(i) and (ii) of this section.

(i) A description and statement of the cause of the deviation.

(ii) If you failed to meet the applicable emission limit in § 63.3890, include all the calculations you used to determine the kg (lb) of organic HAP emitted per liter (gal) coating solids used. You do not need to submit information provided by the materials' suppliers or manufacturers, or test reports.

(7) For each of the data items listed in paragraphs (c)(7)(i) through (iv) of this section that is required by the compliance option(s) you used to demonstrate compliance with the emission limit, include an example of how you determined the value, including calculations and supporting data. Supporting data may include a copy of the information provided by the supplier or manufacturer of the example coating or material, or a summary of the results of testing conducted according to § 63.3941(a), (b), or (c). You do not need to submit copies of any test reports.

(i) Mass fraction of organic HAP for one coating, for one thinner and/or other additive, and for one cleaning material.

(ii) Volume fraction of coating solids for one coating.

(iii) Density for one coating, one thinner and/or other additive, and one leaning material, except that if you use the compliant material option, only the example coating density is required.

(iv) The amount of waste materials and the mass of organic HAP contained in the waste materials for which you are claiming an allowance in Equation 1 of § 63.3951.

(8) The calculation of kg (lb) of organic HAP emitted per liter (gal) coating solids used for the compliance option(s) you used, as specified in paragraphs (c)(8)(i) through (iii) of this section.

(i) For the compliant material option, provide an example calculation of the organic HAP content for one coating, using Equation 2 of § 63.3941.

(ii) For the emission rate without add-on controls option, provide the calculation of the total mass of organic HAP emissions for each month; the calculation of the total volume of coating solids used each month; and the calculation of the 12-month organic HAP emission rate using Equations 1 and 1A through 1C, 2, and 3, respectively, of § 63.3951.

(iii) For the emission rate with add-on controls option, provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month, using Equations 1 and 1A through 1C of § 63.3951; the calculation of the total volume of coating solids used each month using Equation 2 of § 63.3951; the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of § 63.3961 and Equations 2, 3, and 3A through 3C of § 63.3961 as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of § 63.3961; and the calculation of the 12-month organic HAP emission rate using Equation 5 of § 63.3961.

(9) For the emission rate with add-on controls option, you must include the information specified in paragraphs (c)(9)(i) through (iv) of this section, except that the requirements in paragraphs (c)(9)(i) through (iii) of this section do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3961(j).

(i) For each emission capture system, a summary of the data and copies of the calculations supporting the determination that the emission capture system is a permanent total enclosure (PTE) or a measurement of the emission capture system efficiency. Include a description of the protocol followed for measuring capture efficiency, summaries of any capture efficiency tests conducted, and any calculations supporting the capture efficiency determination. If you use the data quality objective (DQO) or lower confidence limit (LCL) approach, you must also include the statistical calculations to show you meet the DQO or LCL criteria in appendix A to subpart KK of this part. You do not need to submit complete test reports.

(ii) A summary of the results of each add-on control device performance test. You do not need to submit complete test reports.

(iii) A list of each emission capture system's and add-on control device's operating limits and a summary of the data used to calculate those limits.

(iv) A statement of whether or not you developed and implemented the work practice plan required by § 63.3893.

(10) If you are complying with a single emission limit representing the predominant activity under § 63.3890(c)(1), include the calculations and supporting information used to demonstrate that this emission limit represents the predominant activity as specified in § 63.3890(c)(1).

(11) If you are complying with a facility-specific emission limit under § 63.3890(c)(2), include the calculation of the facility-specific emission limit and any supporting information as specified in § 63.3890(c)(2).

[69 FR 157, Jan. 2, 2004, as amended at 69 FR 22660, Apr. 26, 2004]

**§ 63.3920 What reports must I submit?**

(a) *Semiannual compliance reports.* You must submit semiannual compliance reports for each affected source according to the requirements of paragraphs (a)(1) through (7) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the Clean Air Act (CAA), as specified in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved or agreed to a different schedule for submission of reports under § 63.10(a), you must prepare and submit each semiannual compliance report according to the dates specified in paragraphs (a)(1)(i) through (iv) of this section. Note that the information reported for each of the months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(i) The first semiannual compliance report must cover the first semiannual reporting period which begins the day after the end of the initial compliance period described in § 63.3940, § 63.3950, or § 63.3960 that applies to your affected source and ends on June 30 or December 31, whichever date is the first date following the end of the initial compliance period.

(ii) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(iii) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(iv) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the date specified in paragraph (a)(1)(iii) of this section.

(2) *Inclusion with title V report.* Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a semiannual compliance report pursuant to this section along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the semiannual compliance report includes all required information concerning deviations from any emission limitation in this subpart, its submission will be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a semiannual compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

(3) *General requirements.* The semiannual compliance report must contain the information specified in paragraphs (a)(3)(i) through (vii) of this section, and the information specified in paragraphs (a)(4) through (7) and (c)(1) of this section that is applicable to your affected source.

(i) Company name and address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.

(iv) Identification of the compliance option or options specified in § 63.3891 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning and ending dates for each option you used.

(v) If you used the emission rate without add-on controls or the emission rate with add-on controls compliance option (§ 63.3891(b) or (c)), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period.

(vi) If you used the predominant activity alternative (§ 63.3890(c)(1)), include the annual determination of predominant activity if it was not included in the previous semi-annual compliance report.

(vii) If you used the facility-specific emission limit alternative (§ 63.3890(c)(2)), include the calculation of the facility-specific emission limit for each 12-month compliance period during the 6-month reporting period.

(4) *No deviations.* If there were no deviations from the emission limitations in §§ 63.3890, 63.3892, and 63.3893 that apply to you, the semiannual compliance report must include a statement that there were no deviations from the emission limitations during the reporting period. If you used the emission rate with add-on controls option and there were no periods during which the continuous parameter monitoring systems (CPMS) were out-of-control as specified in § 63.8(c)(7), the semiannual compliance report must include a statement that there were no periods during which the CPMS were out-of-control during the reporting period.

(5) *Deviations: Compliant material option.* If you used the compliant material option and there was a deviation from the applicable organic HAP content requirements in § 63.3890, the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) Identification of each coating used that deviated from the applicable emission limit, and each thinner and/or other additive, and cleaning material used that contained organic HAP, and the dates and time periods each was used.

(ii) The calculation of the organic HAP content (using Equation 2 of § 63.3941) for each coating identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation ( *e.g.,* information provided by coating suppliers or manufacturers, or test reports).

(iii) The determination of mass fraction of organic HAP for each thinner and/or other additive, and cleaning material identified in paragraph (a)(5)(i) of this section. You do not need to submit background data supporting this calculation ( *e.g.,* information provided by material suppliers or manufacturers, or test reports).

(iv) A statement of the cause of each deviation.

(6) *Deviations: Emission rate without add-on controls option.* If you used the emission rate without add-on controls option and there was a deviation from the applicable emission limit in § 63.3890, the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (iii) of this section.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in § 63.3890.

(ii) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. You must submit the calculations for Equations 1, 1A through 1C, 2, and 3 of § 63.3951; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3951(e)(4). You do not need to submit background data supporting these calculations ( *e.g.,* information provided by materials suppliers or manufacturers, or test reports).

(iii) A statement of the cause of each deviation.

(7) *Deviations: Emission rate with add-on controls option.* If you used the emission rate with add-on controls option and there was a deviation from an emission limitation (including any periods when emissions bypassed the add-on control device and were diverted to the atmosphere), the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (xiv) of this section. This includes periods of startup, shutdown, and malfunction during which deviations occurred.

(i) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in § 63.3890.

(ii) The calculations used to determine the 12-month organic HAP emission rate for each compliance period in which a deviation occurred. You must provide the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of § 63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of § 63.3951; the calculation of the mass of organic HAP emission reduction each month by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of § 63.3961, and Equations 2, 3, and 3A through 3C of § 63.3961, as applicable; the calculation of the total mass of organic HAP emissions each month using Equation 4 of § 63.3961; and the calculation of the 12-month organic HAP emission rate using Equation 5 of § 63.3961. You do not need to submit the background data supporting these calculations ( *e.g.,* information provided by materials suppliers or manufacturers, or test reports).

(iii) The date and time that each malfunction started and stopped.

(iv) A brief description of the CPMS.

(v) The date of the latest CPMS certification or audit.

(vi) The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.

(vii) The date, time, and duration that each CPMS was out-of-control, including the information in § 63.8(c)(8).

(viii) The date and time period of each deviation from an operating limit in Table 1 to this subpart; date and time period of any bypass of the add-on control device; and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(ix) A summary of the total duration of each deviation from an operating limit in Table 1 to this subpart and each bypass of the add-on control device during the semiannual reporting period, and the total duration as a percent of the total source operating time during that semiannual reporting period.

(x) A breakdown of the total duration of the deviations from the operating limits in Table 1 of this subpart and bypasses of the add-on control device during the semiannual reporting period into those that were due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(xi) A summary of the total duration of CPMS downtime during the semiannual reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that semiannual reporting period.

(xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control device since the last semiannual reporting period.

(xiii) For each deviation from the work practice standards, a description of the deviation, the date and time period of the deviation, and the actions you took to correct the deviation.

(xiv) A statement of the cause of each deviation.

(b) *Performance test reports.* If you use the emission rate with add-on controls option, you must submit reports of performance test results for emission capture systems and add-on control devices no later than 60 days after completing the tests as specified in § 63.10(d)(2).

(c) *Startup, shutdown, malfunction reports.* If you used the emission rate with add-on controls option and you had a startup, shutdown, or malfunction during the semiannual reporting period, you must submit the reports specified in paragraphs (c)(1) and (2) of this section.

(1) If your actions were consistent with your startup, shutdown, and malfunction plan, you must include the information specified in § 63.10(d) in the semiannual compliance report required by paragraph (a) of this section.

(2) If your actions were not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report as described in paragraphs (c)(2)(i) and (ii) of this section.

(i) You must describe the actions taken during the event in a report delivered by facsimile, telephone, or other means to the Administrator within 2 working days after starting actions that are inconsistent with the plan.

(ii) You must submit a letter to the Administrator within 7 working days after the end of the event, unless you have made alternative arrangements with the Administrator as specified in § 63.10(d)(5)(ii). The letter must contain the information specified in § 63.10(d)(5)(ii).

**§ 63.3930 What records must I keep?**

You must collect and keep records of the data and information specified in this section. Failure to collect and keep these records is a deviation from the applicable standard.

(a) A copy of each notification and report that you submitted to comply with this subpart, and the documentation supporting each notification and report. If you are using the predominant activity alternative under § 63.3890(c), you must keep records of the data and calculations used to determine the predominant activity. If you are using the facility-specific emission limit alternative under § 63.3890(c), you must keep records of the data used to calculate the facility-specific emission limit for the initial compliance demonstration. You must also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports.

(b) A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and/or other additive, and cleaning material, and the volume fraction of coating solids for each coating. If you conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, you must keep a copy of the complete test report. If you use information provided to you by the manufacturer or supplier of the material that was based on testing, you must keep the summary sheet of results provided to you by the manufacturer or supplier. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each compliance period, the records specified in paragraphs (c)(1) through (4) of this section.

(1) A record of the coating operations on which you used each compliance option and the time periods (beginning and ending dates and times) for each option you used.

(2) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 2 of § 63.3941.

(3) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1, 1A through 1C, and 2 of § 63.3951; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3951(e)(4); the calculation of the total volume of coating solids used each month using Equation 2 of § 63.3951; and the calculation of each 12-month organic HAP emission rate using Equation 3 of § 63.3951.

(4) For the emission rate with add-on controls option, records of the calculations specified in paragraphs (c)(4)(i) through (v) of this section.

(i) The calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 1 and 1A through 1C of § 63.3951 and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to § 63.3951(e)(4);

(ii) The calculation of the total volume of coating solids used each month using Equation 2 of § 63.3951;

(iii) The calculation of the mass of organic HAP emission reduction by emission capture systems and add-on control devices using Equations 1 and 1A through 1D of § 63.3961 and Equations 2, 3, and 3A through 3C of § 63.3961, as applicable;

(iv) The calculation of each month's organic HAP emission rate using Equation 4 of § 63.3961; and

(v) The calculation of each 12-month organic HAP emission rate using Equation 5 of § 63.3961.

(d) A record of the name and volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period. If you are using the compliant material option for all coatings at the source, you may maintain purchase records for each material used rather than a record of the volume used.

(e) A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period unless the material is tracked by weight.

(f) A record of the volume fraction of coating solids for each coating used during each compliance period.

(g) If you use either the emission rate without add-on controls or the emission rate with add-on controls compliance option, the density for each coating, thinner and/or other additive, and cleaning material used during each compliance period.

(h) If you use an allowance in Equation 1 of § 63.3951 for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to § 63.3951(e)(4), you must keep records of the information specified in paragraphs (h)(1) through (3) of this section.

(1) The name and address of each TSDF to which you sent waste materials for which you use an allowance in Equation 1 of § 63.3951; a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility; and the date of each shipment.

(2) Identification of the coating operations producing waste materials included in each shipment and the month or months in which you used the allowance for these materials in Equation 1 of § 63.3951.

(3) The methodology used in accordance with § 63.3951(e)(4) to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This must include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment.

(i) [Reserved]

(j) You must keep records of the date, time, and duration of each deviation.

(k) If you use the emission rate with add-on controls option, you must keep the records specified in paragraphs (k)(1) through (8) of this section.

(1) For each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) The records required to show continuous compliance with each operating limit specified in Table 1 to this subpart that applies to you.

(4) For each capture system that is a PTE, the data and documentation you used to support a determination that the capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and has a capture efficiency of 100 percent, as specified in § 63.3965(a).

(5) For each capture system that is not a PTE, the data and documentation you used to determine capture efficiency according to the requirements specified in §§ 63.3964 and 63.3965(b) through (e), including the records specified in paragraphs (k)(5)(i) through (iii) of this section that apply to you.

(i) *Records for a liquid-to-uncaptured gas protocol using a temporary total enclosure or building enclosure.* Records of the mass of total volatile hydrocarbon (TVH) as measured by Method 204A or 204F of appendix M to 40 CFR part 51 for each material used in the coating operation, and the total TVH for all materials used during each capture efficiency test run, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run, as measured by Method 204D or 204E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(ii) *Records for a gas-to-gas protocol using a temporary total enclosure or a building enclosure.* Records of the mass of TVH emissions captured by the emission capture system as measured by Method 204B or 204C of appendix M to 40 CFR part 51 at the inlet to the add-on control device, including a copy of the test report. Records of the mass of TVH emissions not captured by the capture system that exited the temporary total enclosure or building enclosure during each capture efficiency test run as measured by Method 204D or 204E of appendix M to 40 CFR part 51, including a copy of the test report. Records documenting that the enclosure used for the capture efficiency test met the criteria in Method 204 of appendix M to 40 CFR part 51 for either a temporary total enclosure or a building enclosure.

(iii) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol as specified in § 63.3965(e), if applicable.

(6) The records specified in paragraphs (k)(6)(i) and (ii) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in § 63.3966.

(i) Records of each add-on control device performance test conducted according to §§ 63.3964 and 63.3966.

(ii) Records of the coating operation conditions during the add-on control device performance test showing that the performance test was conducted under representative operating conditions.

(7) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in § 63.3967 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(8) A record of the work practice plan required by § 63.3893 and documentation that you are implementing the plan on a continuous basis.

**§ 63.3931 In what form and for how long must I keep my records?**

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1). Where appropriate, the records may be maintained as electronic spreadsheets or as a database.

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to § 63.10(b)(1). You may keep the records off-site for the remaining 3 years.

**Compliance Requirements for the Compliant Material Option**

**§ 63.3940 By what date must I conduct the initial compliance demonstration?**

You must complete the initial compliance demonstration for the initial compliance period according to the requirements in § 63.3941. The initial compliance period begins on the applicable compliance date specified in § 63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through that month plus the next 12 months. The initial compliance demonstration includes the calculations according to § 63.3941 and supporting documentation showing that during the initial compliance period, you used no coating with an organic HAP content that exceeded the applicable emission limit in § 63.3890, and that you used no thinners and/or other additives, or cleaning materials that contained organic HAP as determined according to § 63.3941(a).

**§ 63.3941 How do I demonstrate initial compliance with the emission limitations?**

You may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the emission rate without add-on controls option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limits in § 63.3890 and must use no thinner and/or other additive, or cleaning material that contains organic HAP as determined according to this section. Any coating operation for which you use the compliant material option is not required to meet the operating limits or work practice standards required in §§ 63.3892 and 63.3893, respectively. You must conduct a separate initial compliance demonstration for each general use, high performance, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.3890(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. Use the procedures in this section on each coating, thinner and/or other additive, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. You do not need to redetermine the organic HAP content of coatings, thinners and/or other additives, and cleaning materials that are reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during the compliance period by using one of the options in paragraphs (a)(1) through (5) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when performing a Method 311 test.

(i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not have to count it. Express the mass fraction of each organic HAP you count as a value truncated to four places after the decimal point ( *e.g.,* 0.3791).

(ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point ( *e.g.,* 0.763).

(2) *Method 24 (appendix A to 40 CFR part 60).* For coatings, you may use Method 24 to determine the mass fraction of nonaqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may use the alternative method contained in appendix A to subpart PPPP of this part, rather than Method 24. You may use the volatile fraction that is emitted, as measured by the alternative method in appendix A to subpart PPPP of this part, as a substitute for the mass fraction of organic HAP.

(3) *Alternative method.* You may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(4) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (3) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to count it. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, you may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. If there is a disagreement between such information and results of a test conducted according to paragraphs (a)(1) through (3) of this section, then the test method results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(5) *Solvent blends.* Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, you may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 3 or 4 to this subpart. If you use the tables, you must use the values in Table 3 for all solvent blends that match Table 3 entries according to the instructions for Table 3, and you may use Table 4 only if the solvent blends in the materials you use do not match any of the solvent blends in Table 3 and you know only whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (appendix A to 40 CFR part 63) test indicate higher values than those listed on Table 3 or 4 to this subpart, the Method 311 results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(b) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liters (gal) of coating solids per liter (gal) of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in paragraphs (b)(1) through (4) of this section. If test results obtained according to paragraph (b)(1) of this section do not agree with the information obtained under paragraph (b)(3) or (4) of this section, the test results will take precedence unless, after consultation, you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(1) *ASTM Method D2697-86 (Reapproved 1998) or ASTM Method D6093-97 (Reapproved 2003).* You may use ASTM Method D2697-86 (Reapproved 1998), “Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings” (incorporated by reference, see § 63.14), or ASTM Method D6093-97 (Reapproved 2003), “Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer” (incorporated by reference, see § 63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.

(2) *Alternative method.* You may use an alternative test method for determining the solids content of each coating once the Administrator has approved it. You must follow the procedure in § 63.7(f) to submit an alternative test method for approval.

(3) *Information from the supplier or manufacturer of the material.* You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

(4) *Calculation of volume fraction of coating solids.* You may determine the volume fraction of coating solids using Equation 1 of this section:

$$V_s = 1 - \frac{m_{volatiles}}{D_{avg}} \qquad (Eq.\ 1)$$

Where:

$V_s$ = Volume fraction of coating solids, liters (gal) coating solids per liter (gal) coating.

$m_{volatiles}$ = Total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in appendix A of 40 CFR part 60, grams volatile matter per liter coating.

$D_{avg}$ = Average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475-98, “Standard Test Method for Density of Liquid Coatings, Inks, and Related Products” (incorporated by reference, see § 63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-98 test results and other information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(c) *Determine the density of each coating.* Determine the density of each coating used during the compliance period from test results using ASTM Method D1475-98, “Standard Test Method for Density of Liquid Coatings, Inks, and Related Products” (incorporated by reference, see § 63.14), information from the supplier or manufacturer of the material, or specific gravity data for pure chemicals. If there is disagreement between ASTM Method D1475-98 test results and the supplier's or manufacturer's information, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(d) *Determine the organic HAP content of each coating.* Calculate the organic HAP content, kg (lb) of organic HAP emitted per liter (gal) coating solids used, of each coating used during the compliance period using Equation 2 of this section:

$$H_c = \frac{(D_c)(W_c)}{V_s} \qquad (Eq.\ 2)$$

Where:

$H_c$ = Organic HAP content of the coating, kg organic HAP emitted per liter (gal) coating solids used.

$D_c$ = Density of coating, kg coating per liter (gal) coating, determined according to paragraph (c) of this section.

$W_c$ = Mass fraction of organic HAP in the coating, kg organic HAP per kg coating, determined according to paragraph (a) of this section.

$V_s$ = Volume fraction of coating solids, liter (gal) coating solids per liter (gal) coating, determined according to paragraph (b) of this section.

(e) *Compliance demonstration.* The calculated organic HAP content for each coating used during the initial compliance period must be less than or equal to the applicable emission limit in § 63.3890; and each thinner and/or other additive, and cleaning material used during the initial compliance period must contain no organic HAP, determined according to paragraph (a) of this section. You must keep all records required by §§ 63.3930 and 63.3931. As part of the notification of compliance status required in § 63.3910, you must identify the coating operation(s) for which you used the compliant material option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in § 63.3890, and you used no thinners and/or other additives, or cleaning materials that contained organic HAP, determined according to the procedures in paragraph (a) of this section.

**§ 63.3942 How do I demonstrate continuous compliance with the emission limitations?**

(a) For each compliance period to demonstrate continuous compliance, you must use no coating for which the organic HAP content (determined using Equation 2 of § 63.3941) exceeds the applicable emission limit in § 63.3890, and use no thinner and/or other additive, or cleaning material that contains organic HAP, determined according to § 63.3941(a). A compliance period consists of 12 months. Each month, after the end of the initial compliance period described in § 63.3940, is the end of a compliance period consisting of that month and the preceding 11 months. If you are complying with a facility-specific emission limit under § 63.3890(c), you must also perform the calculation using Equation 1 in § 63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If you choose to comply with the emission limitations by using the compliant material option, the use of any coating, thinner and/or other additive, or cleaning material that does not meet the criteria specified in paragraph (a) of this section is a deviation from the emission limitations that must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(5).

(c) As part of each semiannual compliance report required by § 63.3920, you must identify the coating operation(s) for which you used the compliant material option. If there were no deviations from the applicable emission limit in § 63.3890, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because you used no coatings for which the organic HAP content exceeded the applicable emission limit in § 63.3890, and you used no thinner and/or other additive, or cleaning material that contained organic HAP, determined according to § 63.3941(a).

(d) You must maintain records as specified in §§ 63.3930 and 63.3931.

**Compliance Requirements for the Emission Rate Without Add-On Controls Option**

**§ 63.3950 By what date must I conduct the initial compliance demonstration?**

You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3951. The initial compliance period begins on the applicable compliance date specified in § 63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coating solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the calculations according to § 63.3951 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in § 63.3890.

**§ 63.3951 How do I demonstrate initial compliance with the emission limitations?**

You may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. You must use either the compliant material option or the emission rate with add-on controls option for any coating operation in the affected source for which you do not use this option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must meet the applicable emission limit in § 63.3890, but is not required to meet the operating limits or work practice standards in §§ 63.3892 and 63.3893, respectively. You must conduct a separate initial compliance demonstration for each general use, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.3890(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate with add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coating operation for which you use the emission rate without add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month

may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(a) *Determine the mass fraction of organic HAP for each material.* Determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month according to the requirements in § 63.3941(a).

(b) *Determine the volume fraction of coating solids.* Determine the volume fraction of coating solids (liter (gal) of coating solids per liter (gal) of coating) for each coating used during each month according to the requirements in § 63.3941(b).

(c) *Determine the density of each material.* Determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see § 63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If you are including powder coatings in the compliance determination, determine the density of powder coatings, using ASTM Method D5965-02, "Standard Test Methods for Specific Gravity of Coating Powders" (incorporated by reference, see § 63.14), or information from the supplier. If there is disagreement between ASTM Method D1475-98 or ASTM Method D5965-02 test results and other such information sources, the test results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine material density. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, 1C, and 2 of this section.

(d) *Determine the volume of each material used.* Determine the volume (liters) of each coating, thinner and/or other additive, and cleaning material used during each month by measurement or usage records. If you purchase materials or monitor consumption by weight instead of volume, you do not need to determine the volume of each material used. Instead, you may use the material weight in place of the combined terms for density and volume in Equations 1A, 1B, and 1C of this section.

(e) *Calculate the mass of organic HAP emissions.* The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners and/or other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate the mass of organic HAP emissions using Equation 1 of this section.

$$H_e = A + B + C - R_w \qquad (Eq.\ 1)$$

Where:

$H_e$ = Total mass of organic HAP emissions during the month, kg.

A = Total mass of organic HAP in the coatings used during the month, kg, as calculated in Equation 1A of this section.

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg, as calculated in Equation 1B of this section.

C = Total mass of organic HAP in the cleaning materials used during the month, kg, as calculated in Equation 1C of this section.

$R_w$ = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, kg, determined according to paragraph (e)(4) of this section. (You may assign a value of zero to $R_w$ if you do not wish to use this allowance.)

(1) Calculate the kg organic HAP in the coatings used during the month using Equation 1A of this section:

$$A = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad (Eq.\ 1A)$$

Where:

A = Total mass of organic HAP in the coatings used during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg coating per liter coating.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used during the month.

(2) Calculate the kg of organic HAP in the thinners and/or other additives used during the month using Equation 1B of this section:

$$B = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad (Eq.\ 1B)$$

Where:

B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

n = Number of different thinners and/or other additives used during the month.

(3) Calculate the kg organic HAP in the cleaning materials used during the month using Equation 1C of this section:

$$C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad (Eq.\ 1C)$$

Where:

C = Total mass of organic HAP in the cleaning materials used during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg material.

p = Number of different cleaning materials used during the month.

(4) If you choose to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in Equation 1 of this section, then you must determine the mass according to paragraphs (e)(4)(i) through (iv) of this section.

(i) You may only include waste materials in the determination that are generated by coating operations in the affected source for which you use Equation 1 of this section and that will be treated or disposed of by a facility that is regulated as a TSDF under 40 CFR part 262, 264, 265, or 266. The TSDF may be either off-site or on-site. You may not include organic HAP contained in wastewater.

(ii) You must determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in your determination any waste materials sent to a TSDF during a month if you have already included them in the amount collected and stored during that month or a previous month.

(iii) Determine the total mass of organic HAP contained in the waste materials specified in paragraph (e)(4)(ii) of this section.

(iv) You must document the methodology you use to determine the amount of waste materials and the total mass of organic HAP they contain, as required in § 63.3930(h). If waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.

(f) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month, using Equation 2 of this section:

$$V_{st} = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(V_{s,i}\right) \qquad (Eq.\ 2)$$

Where:

$V_{st}$ = Total volume of coating solids used during the month, liters.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$V_{s,i}$ = Volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to § 63.3941(b).

m = Number of coatings used during the month.

(g) *Calculate the organic HAP emission rate.* Calculate the organic HAP emission rate for the compliance period, kg (lb) organic HAP emitted per liter (gal) coating solids used, using Equation 3 of this section:

$$H_{yr} = \frac{\sum_{y=1}^{n} H_e}{\sum_{y=1}^{n} V_{st}} \qquad (Eq.\ 3)$$

Where:

$H_{yr}$ = Average organic HAP emission rate for the compliance period, kg organic HAP emitted per liter coating solids used.

$H_e$ = Total mass of organic HAP emissions from all materials used during month, y, kg, as calculated by Equation 1 of this section.

$V_{st}$ = Total volume of coating solids used during month, y, liters, as calculated by Equation 2 of this section.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

(h) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period calculated using Equation 3 of this section must be less than or equal to the applicable emission limit for each subcategory in § 63.3890 or the predominant activity or facility-specific emission limit allowed in § 63.3890(c). You must keep all records as required by §§ 63.3930 and 63.3931. As part of the notification of compliance status required by § 63.3910, you must identify the coating operation(s) for which you used the emission rate without add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.3890, determined according to the procedures in this section.

**§ 63.3952 How do I demonstrate continuous compliance with the emission limitations?**

(a) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to § 63.3951(a) through (g), must be less than or equal to the applicable emission limit in § 63.3890. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3950 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.3951(a) through (g) on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under § 63.3890(c), you must also perform the calculation using Equation 1 in § 63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in § 63.3890, this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(6).

(c) As part of each semiannual compliance report required by § 63.3920, you must identify the coating operation(s) for which you used the emission rate without add-on controls option. If there were no deviations from the emission limitations, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.3890, determined according to § 63.3951(a) through (g).

(d) You must maintain records as specified in §§ 63.3930 and 63.3931.

**Compliance Requirements for the Emission Rate With Add-On Controls Option**

**§ 63.3960 By what date must I conduct performance tests and other initial compliance demonstrations?**

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3883. Except for solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3961(j), you must conduct a performance test of each capture system and add-on control device according to §§ 63.3964, 63.3965, and 63.3966 and establish the operating limits required by § 63.3892 no later than 180 days after the applicable compliance date specified in § 63.3883. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.3961(j), you must initiate the first material balance no later than the applicable compliance date specified in § 63.3883. For magnet wire coating operations you may, with approval, conduct a performance test of one representative magnet wire coating machine for each group of identical or very similar magnet wire coating machines.

(2) You must develop and begin implementing the work practice plan required by § 63.3893 no later than the compliance date specified in § 63.3883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3961. The initial compliance period begins on the applicable compliance date specified in § 63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3964, 63.3965, and 63.3966; results of liquid-liquid material balances conducted according to § 63.3961(j); calculations according to § 63.3961 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in § 63.3890; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3968; and documentation of whether you developed and implemented the work practice plan required by § 63.3893.

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by § 63.3892 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and continuous parameter monitors during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section. For magnet wire coating operations, you must begin complying with the operating limits for all identical or very similar magnet wire coating machines on the date you complete the performance test of a representative magnet wire coating machine. The requirements in this paragraph (a)(4) do not apply to solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements in § 63.3961(j).

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of this section.

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in § 63.3883. Except for magnet wire coating operations and solvent recovery systems for which you conduct liquid-liquid material balances according to § 63.3961(j), you must conduct a performance test of each capture system and add-on control device according to the procedures in §§ 63.3964, 63.3965, and 63.3966 and establish the operating limits required by § 63.3892 no later than the compliance date specified in § 63.3883. For magnet wire coating operations, you may, with approval, conduct a performance test of a single magnet wire coating machine that represents identical or very similar magnet wire coating machines. For a solvent recovery system for which you conduct liquid-liquid material balances according to § 63.3961(j), you must initiate the first material balance no later than the compliance date specified in § 63.3883.

(2) You must develop and begin implementing the work practice plan required by § 63.3893 no later than the compliance date specified in § 63.3883.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of § 63.3961. The initial compliance period begins on the applicable compliance date specified in § 63.3883 and ends on the last day of the 12th month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next 12 months. You must determine the mass of organic HAP emissions and volume of coatings solids used each month and then calculate an organic HAP emission rate at the end of the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§ 63.3964, 63.3965, and 63.3966; results of liquid-liquid material balances conducted according to § 63.3961(j); calculations according to § 63.3961 and supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the applicable emission limit in § 63.3890; the operating limits established during the performance tests and the results of the continuous parameter monitoring required by § 63.3968; and documentation of whether you developed and implemented the work practice plan required by § 63.3893.

(c) You are not required to conduct an initial performance test to determine capture efficiency or destruction efficiency of a capture system or control device if you receive approval to use the results of a performance test that has been

previously conducted on that capture system or control device. Any such previous tests must meet the conditions described in paragraphs (c)(1) through (3) of this section.

(1) The previous test must have been conducted using the methods and conditions specified in this subpart.

(2) Either no process or equipment changes have been made since the previous test was performed or the owner or operator must be able to demonstrate that the results of the performance test, reliably demonstrate compliance despite process or equipment changes.

(3) Either the required operating parameters were established in the previous test or sufficient data were collected in the previous test to establish the required operating parameters.

**§ 63.3961 How do I demonstrate initial compliance?**

(a) You may use the emission rate with add-on controls option for any coating operation, for any group of coating operations in the affected source, or for all of the coating operations in the affected source. You may include both controlled and uncontrolled coating operations in a group for which you use this option. You must use either the compliant material option or the emission rate without add-on controls option for any coating operation in the affected source for which you do not use the emission rate with add-on controls option. To demonstrate initial compliance, the coating operation(s) for which you use the emission rate with add-on controls option must meet the applicable emission limitations in §§ 63.3890, 63.3892, and 63.3893. You must conduct a separate initial compliance demonstration for each general use, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation, unless you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.3890(c). If you are demonstrating compliance with a predominant activity or facility-specific emission limit as provided in § 63.4490(c), you must demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. You must meet all the requirements of this section. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which you use the compliant material option or the emission rate without add-on controls option. You do not need to redetermine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed onsite (or reclaimed off-site if you have documentation showing that you received back the exact same materials that were sent off-site) and reused in the coatings operation(s) for which you use the emission rate with add-on controls option. If you use coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

(b) *Compliance with operating limits.* Except as provided in § 63.3960(a)(4), and except for solvent recovery systems for which you conduct liquid-liquid material balances according to the requirements of paragraph (j) of this section, you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by § 63.3892, using the procedures specified in §§ 63.3967 and 63.3968.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plan required by § 63.3893 during the initial compliance period, as specified in § 63.3930.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (n) of this section to demonstrate compliance with the applicable emission limit in § 63.3890 for each affected source in each subcategory.

(e) *Determine the mass fraction of organic HAP, density, volume used, and volume fraction of coating solids.* Follow the procedures specified in § 63.3951(a) through (d) to determine the mass fraction of organic HAP, density, and volume of each coating, thinner and/or other additive, and cleaning material used during each month; and the volume fraction of coating solids for each coating used during each month.

(f) *Calculate the total mass of organic HAP emissions before add-on controls.* Using Equation 1 of § 63.3951, calculate the total mass of organic HAP emissions before add-on controls from all coatings, thinners and/or other additives, and cleaning materials used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option.

(g) *Calculate the organic HAP emission reduction for each controlled coating operation.* Determine the mass of organic HAP emissions reduced for each controlled coating operation during each month. The emission reduction determination quantifies the total organic HAP emissions that pass through the emission capture system and are destroyed or removed by the add-on control device. Use the procedures in paragraph (h) of this section to calculate the mass of organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. For each controlled coating operation using a solvent recovery system for which you conduct a liquid-liquid material balance, use the procedures in paragraph (j) of this section to calculate the organic HAP emission reduction.

(h) *Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balance.* Use Equation 1 of this section to calculate the organic HAP emission reduction for each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances. The calculation applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are used in the coating operation served by the emission capture system and add-on control device during each month. You must assume zero efficiency for the emission capture system and add-on control device for any period of time a deviation specified in § 63.3963(c) or (d) occurs in the controlled coating operation, including a deviation during a period of startup, shutdown, or malfunction, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator. Equation 1 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

$$H_C = \left(A_C + B_C + C_C - R_W - H_{UNC}\right)\left(\frac{CE}{100} \times \frac{DRE}{100}\right) \qquad (Eq.\ 1)$$

Where:

$H_C$ = Mass of organic HAP emission reduction for the controlled coating operation during the month, kg.

$A_C$ = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg, as calculated in Equation 1A of this section.

$B_C$ = Total mass of organic HAP in the thinners and/or other additives used in the controlled coating operation during the month, kg, as calculated in Equation 1B of this section.

$C_C$ = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg, as calculated in Equation 1C of this section.

$R_W$ = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the compliance period, kg, determined according to § 63.3951(e)(4). (You may assign a value of zero to $R_W$ if you do not wish to use this allowance.)

$H_{UNC}$ = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in § 63.3963(c) and (d) that occurred during the month in the controlled coating operation, kg, as calculated in Equation 1D of this section.

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§ 63.3964 and 63.3965 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§ 63.3964 and 63.3966 to measure and record the organic HAP destruction or removal efficiency.

(1) Calculate the mass of organic HAP in the coatings used in the controlled coating operation, kg (lb), using Equation 1A of this section:

$$A_C = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad (Eq.\ 1A)$$

Where:

$A_C$ = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg per kg. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners and/or other additives used in the controlled coating operation, kg (lb), using Equation 1B of this section:

$$B_C = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad (Eq.\ 1B)$$

Where:

$B_C$ = Total mass of organic HAP in the thinners and/or other additives used in the controlled coating operation during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg per kg. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

n = Number of different thinners and/or other additives used.

(3) Calculate the mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg (lb), using Equation 1C of this section:

$$C_C = \sum_{k=1}^{p} (Vol_{s,k})(D_{s,k})(W_{s,k}) \qquad (Eq.\ 1C)$$

Where:

$C_C$ = Total mass of organic HAP in the cleaning materials used in the controlled coating operation during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg per kg.

p = Number of different cleaning materials used.

(4) Calculate the mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used in the controlled coating operation during deviations specified in § 63.3963(c) and (d), using Equation 1D of this section:

$$H_{UNC} = \sum_{k=1}^{q} (Vol_k)(D_k)(W_k) \qquad (Eq.\ 1D)$$

Where:

$H_{UNC}$ = Total mass of organic HAP in the coatings, thinners and/or other additives, and cleaning materials used during all deviations specified in § 63.3963(c) and (d) that occurred during the month in the controlled coating operation, kg.

$Vol_h$ = Total volume of coating, thinner and/or other additive, or cleaning material, h, used in the controlled coating operation during deviations, liters.

$D_h$ = Density of coating, thinner and/or other additives, or cleaning material, h, kg per liter.

$W_h$ = Mass fraction of organic HAP in coating, thinner and/or other additives, or cleaning material, h, kg organic HAP per kg coating. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

q = Number of different coatings, thinners and/or other additives, and cleaning materials used.

(i) [Reserved]

(j) *Calculate the organic HAP emission reduction for each controlled coating operation using liquid-liquid material balances.* For each controlled coating operation using a solvent recovery system for which you conduct liquid-liquid material balances, calculate the organic HAP emission reduction by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings, thinners and/or other additives, and cleaning materials that are used in the coating operation controlled by the solvent recovery system during each month. Perform a liquid-liquid material balance for each month as specified in paragraphs (j)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (j)(7) of this section.

(1) For each solvent recovery system, install, calibrate, maintain, and operate according to the manufacturer's specifications, a device that indicates the cumulative amount of volatile organic matter recovered by the solvent recovery system each month. The device must be initially certified by the manufacturer to be accurate to within ±2.0 percent of the mass of volatile organic matter recovered.

(2) For each solvent recovery system, determine the mass of volatile organic matter recovered for the month, based on measurement with the device required in paragraph (j)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, kg volatile organic matter per kg coating. You may determine the volatile organic matter mass fraction using Method 24 of 40 CFR part 60, appendix A, or an EPA approved alternative method, or you may use information provided by the manufacturer or supplier of the coating. In the event of any inconsistency between information provided by the manufacturer or supplier and the results of Method 24 of 40 CFR part 60, appendix A, or an approved alternative method, the test method results will take precedence unless, after consultation you demonstrate to the satisfaction of the enforcement agency that the formulation data are correct.

(4) Determine the density of each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to § 63.3951(c).

(5) Measure the volume of each coating, thinner and/or other additive, and cleaning material used in the coating operation controlled by the solvent recovery system during the month, liters.

(6) Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 2 of this section:

$$R_V = 100 \frac{M_{VR}}{\sum_{i=1}^{m} Vol_i D_i WV_{c,i} + \sum_{j=1}^{n} Vol_j D_j WV_{t,j} + \sum_{k=1}^{p} Vol_k D_k WV_{s,k}} \qquad (Eq.\ 2)$$

Where:

$R_V$ = Volatile organic matter collection and recovery efficiency of the solvent recovery system during the month, percent.

$M_{VR}$ = Mass of volatile organic matter recovered by the solvent recovery system during the month, kg.

$Vol_i$ = Volume of coating, i, used in the coating operation controlled by the solvent recovery system during the month, liters.

$D_i$ = Density of coating, i, kg per liter.

$WV_{c,i}$ = Mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

$Vol_j$ = Volume of thinner and/or other additive, j, used in the coating operation controlled by the solvent recovery system during the month, liters.

$D_j$ = Density of thinner and/or other additive, j, kg per liter.

$WV_{t,j}$ = Mass fraction of volatile organic matter for thinner and/or other additive, j, kg volatile organic matter per kg thinner and/or other additive. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

$Vol_k$ = Volume of cleaning material, k, used in the coating operation controlled by the solvent recovery system during the month, liters.

$D_k$ = Density of cleaning material, k, kg per liter.

$WV_{s,k}$ = Mass fraction of volatile organic matter for cleaning material, k, kg volatile organic matter per kg cleaning material.

m = Number of different coatings used in the coating operation controlled by the solvent recovery system during the month.

n = Number of different thinners and/or other additives used in the coating operation controlled by the solvent recovery system during the month.

p = Number of different cleaning materials used in the coating operation controlled by the solvent recovery system during the month.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month, using Equation 3 of this section and according to paragraphs (j)(7)(i) through (iii) of this section:

$$H_{CSR} = \left(A_{CSR} + B_{CSR} + C_{CSR}\right)\left(\frac{R_V}{100}\right) \qquad (Eq.\ 3)$$

Where:

$H_{CSR}$ = Mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system using a liquid-liquid material balance during the month, kg.

$A_{CSR}$ = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3A of this section.

$B_{CSR}$ = Total mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3B of this section.

$C_{CSR}$ = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 3C of this section.

$R_V$ = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 2 of this section.

(i) Calculate the mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, using Equation 3A of this section.

$$A_{CSR} = \sum_{i=1}^{m}\left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad (Eq.\ 3A)$$

Where:

$A_{CSR}$ = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{c,i}$ = Total volume of coating, i, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{c,i}$ = Density of coating, i, kg per liter.

$W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system, kg, using Equation 3B of this section:

$$B_{CSR} = \sum_{j=1}^{n}\left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad (Eq.\ 3B)$$

Where:

$B_{CSR}$ = Total mass of organic HAP in the thinners and/or other additives used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter.

$W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg lb organic HAP per kg thinner and/or other additive. For reactive adhesives as defined in § 63.3981, use the mass fraction of organic HAP that is emitted as determined using the method in appendix A to subpart PPPP of this part.

n = Number of different thinners and/or other additives used.

(iii) Calculate the mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg, using Equation 3C of this section:

$$C_{CSR} = \sum_{k=1}^{p}\left(Vol_{s,k}\right)\left(D_{s,k}\right)\left(W_{s,k}\right) \qquad (Eq.\ 3C)$$

Where:

$C_{CSR}$ = Total mass of organic HAP in the cleaning materials used in the coating operation controlled by the solvent recovery system during the month, kg.

$Vol_{s,k}$ = Total volume of cleaning material, k, used during the month in the coating operation controlled by the solvent recovery system, liters.

$D_{s,k}$ = Density of cleaning material, k, kg per liter.

$W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg organic HAP per kg cleaning material.

p = Number of different cleaning materials used.

(k) *Calculate the total volume of coating solids used.* Determine the total volume of coating solids used, liters, which is the combined volume of coating solids for all the coatings used during each month in the coating operation or group of coating operations for which you use the emission rate with add-on controls option, using Equation 2 of § 63.3951.

(l) *Calculate the mass of organic HAP emissions for each month.* Determine the mass of organic HAP emissions, kg, during each month, using Equation 4 of this section:

$$H_{HAP} = H_e - \sum_{i=1}^{q}\left(H_{c,i}\right) - \sum_{j=1}^{r}\left(H_{CSR,j}\right) \qquad (Eq.\ 4)$$

where:

$H_{HAP}$ = Total mass of organic HAP emissions for the month, kg.

$H_e$ = Total mass of organic HAP emissions before add-on controls from all the coatings, thinners and/or other additives, and cleaning materials used during the month, kg, determined according to paragraph (f) of this section.

$H_{C,i}$ = Total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, during the month, kg, from Equation 1 of this section.

$H_{CSR,j}$ = Total mass of organic HAP emission reduction for coating operation, j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, kg, from Equation 3 of this section.

q = Number of controlled coating operations not controlled by a solvent recovery system using a liquid-liquid material balance.

r = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

(m) *Calculate the organic HAP emission rate for the compliance period.* Determine the organic HAP emission rate for the compliance period, kg (lb) of organic HAP emitted per liter (gal) coating solids used, using Equation 5 of this section:

$$H_{annual} = \frac{\sum_{y=1}^{n} H_{HAP,y}}{\sum_{y=1}^{n} V_{st,y}} \qquad (Eq.\ 5)$$

Where:

$H_{annual}$ = Organic HAP emission rate for the compliance period, kg organic HAP emitted per liter coating solids used.

$H_{HAP,y}$ = Organic HAP emissions for month, y, kg, determined according to Equation 4 of this section.

$V_{st,y}$ = Total volume of coating solids used during month, y, liters, from Equation 2 of § 63.3951.

y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

(n) *Compliance demonstration.* The organic HAP emission rate for the initial compliance period, calculated using Equation 5 of this section, must be less than or equal to the applicable emission limit for each subcategory in § 63.3890 or the predominant activity or facility-specific emission limit allowed in § 63.3890(c). You must keep all records as required by §§ 63.3930 and 63.3931. As part of the notification of compliance status required by § 63.3910, you must identify the coating operation(s) for which you used the emission rate with add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in § 63.3890, and you achieved the operating limits required by § 63.3892 and the work practice standards required by § 63.3893.

**§ 63.3962 [Reserved]**

**§ 63.3963 How do I demonstrate continuous compliance with the emission limitations?**

(a) To demonstrate continuous compliance with the applicable emission limit in § 63.3890, the organic HAP emission rate for each compliance period, determined according to the procedures in § 63.3961, must be equal to or less than the applicable emission limit in § 63.3890. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in § 63.3960 is the end of a compliance period consisting of that month and the preceding 11 months. You must perform the calculations in § 63.3961 on a monthly basis using data from the previous 12 months of operation. If you are complying with a facility-specific emission limit under § 63.3890(c), you

must also perform the calculation using Equation 1 in § 63.3890(c)(2) on a monthly basis using the data from the previous 12 months of operation.

(b) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in § 63.3890, this is a deviation from the emission limitation for that compliance period that must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(7).

(c) You must demonstrate continuous compliance with each operating limit required by § 63.3892 that applies to you, as specified in Table 1 to this subpart, when the coating line is in operation.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(7).

(2) If an operating parameter deviates from the operating limit specified in Table 1 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation, unless you have other data indicating the actual efficiency of the emission capture system and add-on control device and the use of these data is approved by the Administrator.

(d) You must meet the requirements for bypass lines in § 63.3968(b) for controlled coating operations for which you do not conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(7). For the purposes of completing the compliance calculations specified in §§ 63.3961(h), you must treat the materials used during a deviation on a controlled coating operation as if they were used on an uncontrolled coating operation for the time period of the deviation as indicated in Equation 1 of § 63.3961.

(e) You must demonstrate continuous compliance with the work practice standards in § 63.3893. If you did not develop a work practice plan, or you did not implement the plan, or you did not keep the records required by § 63.3930(k)(8), this is a deviation from the work practice standards that must be reported as specified in §§ 63.3910(c)(6) and 63.3920(a)(7).

(f) As part of each semiannual compliance report required in § 63.3920, you must identify the coating operation(s) for which you used the emission rate with add-on controls option. If there were no deviations from the emission limitations, submit a statement that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in § 63.3890, and you achieved the operating limits required by § 63.3892 and the work practice standards required by § 63.3893 during each compliance period.

(g)-(i) [Reserved]

(j) You must maintain records as specified in §§ 63.3930 and 63.3931.

[69 FR 157, Jan. 2, 2004, as amended at 71 FR 20465, Apr. 20, 2006]

**§ 63.3964 What are the general requirements for performance tests?**

(a) You must conduct each performance test required by § 63.3960 according to the requirements in § 63.7(e)(1) and under the conditions in this section, unless you obtain a waiver of the performance test according to the provisions in § 63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or malfunction and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow

rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in § 63.3965. You must conduct each performance test of an add-on control device according to the requirements in § 63.3966.

**§ 63.3965 How do I determine the emission capture system efficiency?**

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by § 63.3960.

(a) *Assuming 100 percent capture efficiency.* You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings, thinners and/or other additives, and cleaning materials used in the coating operation are applied within the capture system; coating solvent flash-off, curing, and drying occurs within the capture system; and the removal or evaporation of cleaning materials from the surfaces they are applied to occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) *Measuring capture efficiency.* If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the three protocols described in paragraphs (c), (d), and (e) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of the production, which includes surface preparation activities and drying and curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204A or 204F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating, thinner and/or other additive, and cleaning material used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term VOC in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings, thinners and/or other additives, and cleaning materials used in the coating operation during each capture efficiency test run:

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \qquad (Eq.\ 1)$$

Where:

$TVH_{used}$ = Mass of liquid TVH in materials used in the coating operation during the capture efficiency test run, kg.

$TVH_i$ = Mass fraction of TVH in coating, thinner and/or other additive, or cleaning material, i, that is used in the coating operation during the capture efficiency test run, kg TVH per kg material.

$Vol_i$ = Total volume of coating, thinner and/or other additive, or cleaning material, i, used in the coating operation during the capture efficiency test run, liters.

$D_i$ = Density of coating, thinner and/or other additive, or cleaning material, i, kg material per liter material.

n = Number of different coatings, thinners and/or other additives, and cleaning materials used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system. They are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2 of this section:

$$CE = \frac{\left(TVH_{used} - TVH_{uncaptured}\right)}{TVH_{used}} \times 100 \qquad \text{(Eq. 2)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{used}$ = Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings, thinners and/or other additives, and cleaning materials are applied, and all areas where emissions from these applied coatings and materials subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device,

such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or 204C of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or 204C measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously measured in each duct and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or 204E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D of appendix M to 40 CFR part 51 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E of appendix M to 40 CFR part 51 if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3 of this section:

$$CE = \frac{TVH_{captured}}{\left(TVH_{captured} + \mathrm{TVH}_{\mathrm{uncaptured}}\right)} \times 100 \qquad \text{(Eq. 3)}$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

$TVH_{captured}$ = Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.

$TVH_{uncaptured}$ = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Alternative capture efficiency protocol.* As an alternative to the procedures specified in paragraphs (c) and (d) of this section and subject to the approval of the Administrator, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of this part.

**§ 63.3966 How do I determine the add-on control device emission destruction or removal efficiency?**

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by § 63.3960. You must conduct three test

runs as specified in § 63.7(e)(3) and each test run must last at least 1 hour. If the source is a magnet wire coating machine, you may use the procedures in section 3.0 of appendix A to this subpart as an alternative.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight.

(4) Use Method 4 of appendix A to 40 CFR part 60, to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A of appendix A to 40 CFR part 60.

(1) Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million (ppm) at the control device outlet.

(2) Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppm or less at the control device outlet.

(3) Use Method 25A if the add-on control device is not an oxidizer.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet to the atmosphere of each device. For example, if one add-on control device is a concentrator with an outlet to the atmosphere for the high-volume dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet to the atmosphere for the low-volume concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions:

$$M_f = Q_{sd} C_c (12)\ (0.0416)\ \left(10^{-6}\right) \qquad (Eq.\ 1)$$

Where:

$M_f$ = Total gaseous organic emissions mass flow rate, kg per hour (h).

$C_c$ = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, parts per million by volume (ppmv), dry basis.

$Q_{sd}$ = Volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters/hour (dscm/h).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/$m^3$ ) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency, using Equation 2 of this section:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} \times 100 \qquad \text{(Eq. 2)}$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

$M_{fi}$ = Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.

$M_{fo}$ = Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

**§ 63.3967 How do I establish the emission capture system and add-on control device operating limits during the performance test?**

During the performance test required by § 63.3960 and described in §§ 63.3964, 63.3965, and 63.3966, you must establish the operating limits required by § 63.3892 according to this section, unless you have received approval for alternative monitoring and operating limits under § 63.8(f) as specified in § 63.3892.

(a) *Thermal oxidizers.* If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.

(b) *Catalytic oxidizers.* If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section. If the source is a magnet wire coating machine, you may use the procedures in section 3.0 of appendix A to this subpart as an alternative.

(1) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.

(3) You must monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average

temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity ( *i.e.,* conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. If problems are found during the catalyst activity test, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

(ii) Monthly external inspection of the catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found during the annual internal inspection of the catalyst, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst then you must conduct a new performance test to determine destruction efficiency according to § 63.3966. If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

(c) *Regenerative carbon adsorbers.* If your add-on control device is a regenerative carbon adsorber, establish the operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas ( *e.g.,* steam or nitrogen) mass flow for each regeneration cycle, and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your regenerative carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) *Condensers.* If your add-on control device is a condenser, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use the data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum operating limit for your condenser.

(e) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) through (4) of this section.

(1) During the performance test, you must monitor and record the desorption concentrate stream gas temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use the data collected during the performance test to calculate and record the average temperature. This is the minimum operating limit for the desorption concentrate gas stream temperature.

(3) During the performance test, you must monitor and record the pressure drop of the dilute stream across the concentrator at least once every 15 minutes during each of the three runs of the performance test.

(4) Use the data collected during the performance test to calculate and record the average pressure drop. This is the minimum operating limit for the dilute stream across the concentrator.

(f) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of § 63.3965(a), establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart. If the source is a magnet wire coating machine, you may use the procedures in section 2.0 of appendix A to this subpart as an alternative.

(1) During the capture efficiency determination required by § 63.3960 and described in §§ 63.3964 and 63.3965, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

**§ 63.3968 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?**

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out-of-control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraphs (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (v) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (nondiverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

(v) *Flow direction indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow direction indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. Each time the flow direction changes, the next reading of the time of occurrence and flow direction must be recorded. The flow direction indicator must be installed in each bypass line or air makeup supply line that could divert the emissions away from the add-on control device to the atmosphere.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in § 63.3920.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used with concentrators or with carbon adsorbers to treat desorbed concentrate streams), you must comply with the requirements in paragraphs (c)(1) through (3) of this section:

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install gas temperature monitors upstream and/or downstream of the catalyst bed as required in § 63.3967(b).

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a) and (c)(3)(i) through (v) of this section for each gas temperature monitoring device.

(i) Locate the temperature sensor in a position that provides a representative temperature.

(ii) Use a temperature sensor with a measurement sensitivity of 5 degrees Fahrenheit or 1.0 percent of the temperature value, whichever is larger.

(iii) Before using the sensor for the first time or when relocating or replacing the sensor, perform a validation check by comparing the sensor output to a calibrated temperature measurement device or by comparing the sensor output to a simulated temperature.

(iv) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor output to redundant temperature sensors, to calibrated temperature measurement devices, or to temperature simulation devices.

(v) Conduct a visual inspection of each sensor every quarter if redundant temperature sensors are not used.

(d) *Regenerative carbon adsorbers.* If you are using a regenerative carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas ( *e.g.,* steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) through (3) of this section.

(1) The regeneration desorbing gas mass flow monitor must be an integrating device having a measurement sensitivity of plus or minus 10 percent capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.

(2) The carbon bed temperature monitor must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(3) For all regenerative carbon adsorbers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a) and (e)(1) and (2) of this section.

(1) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(2) For all condensers, you must meet the requirements in paragraphs (c)(3)(i) through (v) of this section for each temperature monitoring device.

(f) *Concentrators.* If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must comply with the requirements in paragraphs (f)(1) and (2) of this section.

(1) You must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a) and (c)(3) of this section.

(2) You must install a device to monitor pressure drop across the zeolite wheel or rotary carbon bed. The pressure monitoring device must meet the requirements in paragraphs (a) and (g)(2) of this section.

(g) *Emission capture systems.* The capture system monitoring system must comply with the applicable requirements in paragraphs (g)(1) and (2) of this section. If the source is a magnet wire coating machine, you may use the procedures in section 2.0 of appendix A to this subpart as an alternative.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a) and (g)(1)(i) through (vii) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Use a flow sensor with an accuracy of at least 10 percent of the flow.

(iii) Perform an initial sensor calibration in accordance with the manufacturer's requirements.

(iv) Perform a validation check before initial use or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values with electronic signal simulations or via relative accuracy testing.

(v) Conduct an accuracy audit every quarter and after every deviation. Accuracy audit methods include comparisons of sensor values with electronic signal simulations or via relative accuracy testing.

(vi) Perform leak checks monthly.

(vii) Perform visual inspections of the sensor system quarterly if there is no redundant sensor.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a) and (g)(2)(i) through (vii) of this section.

(i) Locate the pressure sensor(s) in or as close to a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Use a pressure sensor with an accuracy of at least 0.5 inches of water column or 5 percent of the measured value, whichever is larger.

(iii) Perform an initial calibration of the sensor according to the manufacturer's requirements.

(iv) Conduct a validation check before initial operation or upon relocation or replacement of a sensor. Validation checks include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(v) Conduct accuracy audits every quarter and after every deviation. Accuracy audits include comparison of sensor values to calibrated pressure measurement devices or to pressure simulation using calibrated pressure sources.

(vi) Perform monthly leak checks on pressure connections. A pressure of at least 1.0 inches of water column to the connection must yield a stable sensor result for at least 15 seconds.

(vii) Perform a visual inspection of the sensor at least monthly if there is no redundant sensor.

**Other Requirements and Information**

**§ 63.3980 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by us, the U.S. Environmental Protection Agency (EPA), or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section:

(1) Approval of alternatives to the requirements in § 63.3881 through 3883 and § 63.3890 through 3893.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

**§ 63.3981 What definitions apply to this subpart?**

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

*Additive* means a material that is added to a coating after purchase from a supplier ( *e.g.,* catalysts, activators, accelerators).

*Add-on control* means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

*Adhesive, adhesive coating* means any chemical substance that is applied for the purpose of bonding two surfaces together. Products used on humans and animals, adhesive tape, contact paper, or any other product with an adhesive incorporated onto or in an inert substrate shall not be considered adhesives under this subpart.

*Assembled on-road vehicle coating* means any coating operation in which coating is applied to the surface of some component or surface of a fully assembled motor vehicle or trailer intended for on-road use including, but not limited to, components or surfaces on automobiles and light-duty trucks that have been repaired after a collision or otherwise repainted, fleet delivery trucks, and motor homes and other recreational vehicles (including camping trailers and fifth wheels). Assembled on-road vehicle coating includes the concurrent coating of parts of the assembled on-road vehicle that are painted off-vehicle to protect systems, equipment, or to allow full coverage. Assembled on-road vehicle coating does not include surface coating operations that meet the applicability criteria of the automobiles and light-duty trucks NESHAP. Assembled on-road vehicle coating also does not include the use of adhesives, sealants, and caulks used in assembling on-road vehicles.

*Capture device* means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

*Capture efficiency or capture system efficiency* means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

*Capture system* means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings or cleaning materials, both at the point of application and at subsequent points where emissions from the coatings and cleaning materials occur, such as flashoff, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

*Cleaning material* means a solvent used to remove contaminants and other materials, such as dirt, grease, oil, and dried or wet coating ( *e.g.,* depainting or paint stripping), from a substrate before or after coating application or from equipment associated with a coating operation, such as spray booths, spray guns, racks, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

*Coating* means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, liquid plastic coatings, caulks, inks, adhesives, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances, or paper film or plastic film which may be pre-coated with an adhesive by the film manufacturer, are not considered coatings for the purposes of this subpart. A liquid plastic coating means a coating made from fine particle-size polyvinyl chloride (PVC) in solution (also referred to as a plastisol).

*Coating operation* means equipment used to apply cleaning materials to a substrate to prepare it for coating application (surface preparation) or to remove dried coating; to apply coating to a substrate (coating application) and to dry or cure the coating after application; or to clean coating operation equipment (equipment cleaning). A single coating operation may include any combination of these types of equipment, but always includes at least the point at which a given quantity of coating or cleaning material is applied to a given part and all subsequent points in the affected source where organic HAP are emitted from the specific quantity of coating or cleaning material on the specific part. There may be multiple coating operations in an affected source. Coating application with handheld, non-refillable aerosol containers, touch-up markers, or marking pens is not a coating operation for the purposes of this subpart.

*Coatings solids* means the nonvolatile portion of the coating that makes up the dry film.

*Continuous parameter monitoring system (CPMS)* means the total equipment that may be required to meet the data acquisition and availability requirements of this subpart, used to sample, condition (if applicable), analyze, and provide a record of coating operation, or capture system, or add-on control device parameters.

*Controlled coating operation* means a coating operation from which some or all of the organic HAP emissions are routed through an emission capture system and add-on control device.

*Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart including but not limited to, any emission limit or operating limit or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limit, or operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

*Emission limitation* means the aggregate of all requirements associated with a compliance option including emission limit, operating limit, work practice standard, etc.

*Enclosure* means a structure that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

*Exempt compound* means a specific compound that is not considered a VOC due to negligible photochemical reactivity. The exempt compounds are listed in 40 CFR 51.100(s).

*Extreme performance fluoropolymer coating* means coatings that are formulated systems based on fluoropolymer resins which often contain bonding matrix polymers dissolved in non-aqueous solvents as well as other ingredients. Extreme performance fluoropolymer coatings are typically used when one or more critical performance criteria are required including, but not limited to a nonstick low-energy surface, dry film lubrication, high resistance to chemical attack, extremely wide operating temperature, high electrical insulating properties, or that the surface comply with government ( *e.g.,* USDA, FDA) or third party specifications for health, safety, reliability, or performance. Once applied to a substrate, extreme performance fluoropolymer coatings undergo a curing process that typically requires high temperatures, a chemical reaction, or other specialized technology.

*Facility maintenance* means the routine repair or renovation (including the surface coating) of the tools, equipment, machinery, and structures that comprise the infrastructure of the affected facility and that are necessary for the facility to function in its intended capacity.

*General use coating* means any material that meets the definition of coating but does not meet the definition of high performance coating, rubber-to-metal coating, magnet wire coating, or extreme performance fluoropolymer coating as defined in this section.

*High performance architectural coating* means any coating applied to architectural subsections which is required to meet the specifications of Architectural Aluminum Manufacturer's Association's publication number AAMA 605.2-2000.

*High performance coating* means any coating that meets the definition of high performance architectural coating or high temperature coating in this section.

*High temperature coating* means any coating applied to a substrate which during normal use must withstand temperatures of at least 538 degrees Celsius (1000 degrees Fahrenheit).

*Hobby shop* means any surface coating operation, located at an affected source, that is used exclusively for personal, noncommercial purposes by the affected source's employees or assigned personnel.

*Magnet wire coatings,* commonly referred to as magnet wire enamels, are applied to a continuous strand of wire which will be used to make turns (windings) in electrical devices such as coils, transformers, or motors. Magnet wire coatings provide high dielectric strength and turn-to-turn conductor insulation. This allows the turns of an electrical device to be placed in close proximity to one another which leads to increased coil effectiveness and electrical efficiency.

*Magnet wire coating machine* means equipment which applies and cures magnet wire coatings.

*Manufacturer's formulation data* means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in § 63.3941. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

*Mass fraction of organic HAP* means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

*Month* means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

*Non-HAP coating* means, for the purposes of this subpart, a coating that contains no more than 0.1 percent by mass of any individual organic HAP that is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4) and no more than 1.0 percent by mass for any other individual HAP.

*Organic HAP content* means the mass of organic HAP emitted per volume of coating solids used for a coating calculated using Equation 2 of § 63.3941. The organic HAP content is determined for the coating in the condition it is in when received from its manufacturer or supplier and does not account for any alteration after receipt. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, organic HAP content is the mass of organic HAP that is emitted, rather than the organic HAP content of the coating as it is received.

*Permanent total enclosure (PTE)* means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

*Personal watercraft* means a vessel (boat) which uses an inboard motor powering a water jet pump as its primary source of motive power and which is designed to be operated by a person or persons sitting, standing, or kneeling on the vessel, rather than in the conventional manner of sitting or standing inside the vessel.

*Protective oil* means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils. Protective oils used on miscellaneous metal parts and products include magnet wire lubricants and soft temporary protective coatings that are removed prior to installation or further assembly of a part or component.

*Reactive adhesive* means adhesive systems composed, in part, of volatile monomers that react during the adhesive curing reaction, and, as a result, do not evolve from the film during use. These volatile components instead become integral parts of the adhesive through chemical reaction. At least 70 percent of the liquid components of the system, excluding water, react during the process.

*Research or laboratory facility* means a facility whose primary purpose is for research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and is not engaged in the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

*Responsible official* means responsible official as defined in 40 CFR 70.2.

*Rubber-to-metal coatings* are coatings that contain heat-activated polymer systems in either solvent or water that, when applied to metal substrates, dry to a non-tacky surface and react chemically with the rubber and metal during a vulcanization process.

*Startup, initial* means the first time equipment is brought online in a facility.

*Surface preparation* means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called depainting.

*Temporary total enclosure* means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

*Thinner* means an organic solvent that is added to a coating after the coating is received from the supplier.

*Total volatile hydrocarbon (TVH)* means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through 204F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

*Uncontrolled coating operation* means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

*Volatile organic compound (VOC)* means any compound defined as VOC in 40 CFR 51.100(s).

*Volume fraction of coating solids* means the ratio of the volume of coating solids (also known as the volume of nonvolatiles) to the volume of a coating in which it is contained; liters (gal) of coating solids per liter (gal) of coating.

*Wastewater* means water that is generated in a coating operation and is collected, stored, or treated prior to being discarded or discharged.

**Table 1 to Subpart MMMM of Part 63—Operating Limits if Using the Emission Rate With Add-On Controls Option**

If you are required to comply with operating limits by § 63.3892(c), you must comply with the applicable operating limits in the following table:

| For the following device . . . | You must meet the following operating limit . . . | And you must demonstrate continuous compliance with the operating limit by . . . |
|---|---|---|
| 1. Thermal oxidizer | a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to § 63.3967(a) | i. Collecting the combustion temperature data according to § 63.3968(c);<br>ii. Reducing the data to 3-hour block averages; and<br>iii. Maintaining the 3-hour average combustion temperature at or above the temperature limit. |
| 2. Catalytic oxidizer | a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to § 63.3967(b) (for magnet wire coating machines, temperature can be monitored before or after the catalyst bed); and either | i. Collecting the temperature data according to § 63.3968(c);<br>ii. Reducing the data to 3-hour block averages; and<br>iii. Maintaining the 3-hour average temperature before (or for magnet wire coating machines after) the catalyst bed at or above the temperature limit. |
| | b. Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to § 63.3967(b) (2); or | i. Collecting the temperature data according to § 63.3968(c);<br>ii. Reducing the data to 3-hour block averages; and<br>iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit. |

| For the following device . . . | You must meet the following operating limit . . . | And you must demonstrate continuous compliance with the operating limit by . . . |
|---|---|---|
| | c. Develop and implement an inspection and maintenance plan according to § 63.3967(b)(4) or for magnet wire coating machines according to section 3.0 of appendix A to this subpart | i. Maintaining and up-to-date inspection and maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by § 63.3967(b)(4) or for magnet wire coating machines by section 3.0 of appendix A to this subpart, you must take corrective action as soon as practicable consistent with the manufacturer's recommendations. |
| 3. Regenerative carbon adsorber | a. The total regeneration desorbing gas (*e.g.,*steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to § 63.3967(c); and | i. Measuring the total regeneration desorbing gas (*e.g.,*steam or nitrogen) mass flow for each regeneration cycle according to § 63.3968(d); and<br>ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit. |
| | b. The temperature of the carbon bed, after completing each regeneration and any cooling cycle, must not exceed the carbon bed temperature limit established according to § 63.3967(c) | i. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to § 63.3968(d); and<br>ii. Operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit. |
| 4. Condenser | a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to § 63.3967(d) | i. Collecting the condenser outlet (product side) gas temperature according to § 63.3968(e);<br>ii. Reducing the data to 3-hour block averages; and<br>iii. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit. |
| 5. Concentrators, including zeolite wheels and rotary carbon adsorbers | a. The average gas temperature of the desorption concentrate stream in any 3-hour period must not fall below the limit established according to § 63.3967(e); and | i. Collecting the temperature data according to 63.3968(f);<br>ii. Reducing the data to 3-hour block averages; and<br>iii. Maintaining the 3-hour average temperature at or above the temperature limit. |
| | b. The average pressure drop of the dilute stream across the concentrator in any 3-hour period must not fall below the limit established according to § 63.3967(e) | i. Collecting the pressure drop data according to 63.3968(f);<br>ii. Reducing the pressure drop data to 3-hour block averages; and<br>iii. Maintaining the 3-hour average pressure drop at or above the pressure drop limit. |
| 6. Emission capture system that is a PTE according to § 63.3965(a) | a. The direction of the air flow at all times must be into the enclosure; and either | i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to § 63.3968(b)(1) or the pressure drop across the enclosure according to § 63.3968(g)(2); and<br>ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times. |
| | b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minutes; or | i. See items 6.a.i and 6.a.ii. |

| For the following device . . . | You must meet the following operating limit . . . | And you must demonstrate continuous compliance with the operating limit by . . . |
|---|---|---|
| | c. The pressure drop across the enclosure must be at least 0.007 inch $H_2O$, as established in Method 204 of appendix M to 40 CFR part 51 | i. See items 6.a.i and 6.a.ii. |
| 7. Emission capture system that is not a PTE according to § 63.3965(a) | a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to § 63.3967(f) | i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to § 63.3968(g);<br>ii. Reducing the data to 3-hour block averages; and<br>iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limited. |

**Table 2 to Subpart MMMM of Part 63—Applicability of General Provisions to Subpart MMMM of Part 63**

You must comply with the applicable General Provisions requirements according to the following table:

| Citation | Subject | Applicable to subpart MMMM | Explanation |
|---|---|---|---|
| § 63.1(a)(1)-(14) | General Applicability | Yes | |
| § 63.1(b)(1)-(3) | Initial Applicability Determination | Yes | Applicability to subpart MMMM is also specified in § 63.3881. |
| § 63.1(c)(1) | Applicability After Standard Established | Yes | |
| § 63.1(c)(2)-(3) | Applicability of Permit Program for Area Sources | No | Area sources are not subject to subpart MMMM. |
| § 63.1(c)(4)-(5) | Extensions and Notifications | Yes | |
| § 63.1(e) | Applicability of Permit Program Before Relevant Standard is Set | Yes | |
| § 63.2 | Definitions | Yes | Additional definitions are specified in § 63.3981. |
| § 63.1(a)-(c) | Units and Abbreviations | Yes | |
| § 63.4(a)(1)-(5) | Prohibited Activities | Yes | |
| § 63.4(b)-(c) | Circumvention/Severability | Yes | |
| § 63.5(a) | Construction/Reconstruction | Yes | |
| § 63.5(b)(1)-(6) | Requirements for Existing Newly Constructed, and Reconstructed Sources | Yes | |
| § 63.5(d) | Application for Approval of Construction/Reconstruction | Yes | |
| § 63.5(e) | Approval of Construction/Reconstruction | Yes | |
| § 63.5(f) | Approval of Construction/Reconstruction Based on Prior State Review | Yes | |
| § 63.6(a) | Compliance With Standards and Maintenance Requirements—Applicability | Yes | |
| § 63.6(b)(1)-(7) | Compliance Dates for New and Reconstructed Sources | Yes | Section 63.3883 specifies the compliance dates. |

| Citation | Subject | Applicable to subpart MMMM | Explanation |
|---|---|---|---|
| § 63.6(c)(1)-(5) | Compliance Dates for Existing Sources | Yes | Section 63.3883 specifies the compliance dates. |
| § 63.6(e)(1)-(2) | Operation and Maintenance | Yes | |
| § 63.6(e)(3) | Startup, Shutdown, and Malfunction Plan | Yes | Only sources using an add-on control device to comply with the standard must complete startup, shutdown, and malfunction plans. |
| § 63.6(f)(1) | Compliance Except During Startup, Shutdown, and Malfunction | Yes | Applies only to sources using an add-on control device to comply with the standard. |
| § 63.6(f)(2)-(3) | Methods for Determining Compliance. | Yes | |
| § 63.6(g)(1)-(3) | Use of an Alternative Standard | Yes | |
| § 63.6(h) | Compliance With Opacity/Visible Emission Standards | No | Subpart MMMM does not establish opacity standards and does not require continuous opacity monitoring systems (COMS). |
| § 63.6(i)(1)-(16) | Extension of Compliance | Yes | |
| § 63.6(j) | Presidential Compliance Exemption | Yes | |
| § 63.7(a)(1) | Performance Test Requirements—Applicability | Yes | Applies to all affected sources. Additional requirements for performance testing are specified in §§ 63.3964, 63.3965, and 63.3966. |
| § 63.7(a)(2) | Performance Test Requirements—Dates | Yes | Applies only to performance tests for capture system and control device efficiency at sources using these to comply with the standard. Section 63.3960 specifies the schedule for performance test requirements that are earlier than those specified in § 63.7(a)(2). |
| § 63.7(a)(3) | Performance Tests Required By the Administrator | Yes | |
| § 63.7(b)-(e) | Performance Test Requirements—Notification, Quality Assurance, Facilities Necessary for Safe Testing, Conditions During Test | Yes | Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard. |
| § 63.7(f) | Performance Test Requirements—Use of Alternative Test Method | Yes | Applies to all test methods except those used to determine capture system efficiency. |
| § 63.7(g)-(h) | Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test | Yes | Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standard. |
| § 63.8(a)(1)-(3) | Monitoring Requirements—Applicability | Yes | Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for monitoring are specified in § 63.3968. |
| § 63.8(a)(4) | Additional Monitoring Requirements | No | Subpart MMMM does not have monitoring requirements for flares. |
| § 63.8(b) | Conduct of Monitoring | Yes | |

| Citation | Subject | Applicable to subpart MMMM | Explanation |
|---|---|---|---|
| § 63.8(c)(1)-(3) | Continuous Monitoring Systems (CMS) Operation and Maintenance | Yes | Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standard. Additional requirements for CMS operations and maintenance are specified in § 63.3968. |
| § 63.8(c)(4) | CMS | No | § 63.3968 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply. |
| § 63.8(c)(5) | COMS | No | Subpart MMMM does not have opacity or visible emission standards. |
| § 63.8(c)(6) | CMS Requirements | No | Section 63.3968 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply. |
| § 63.8(c)(7) | CMS Out-of-Control Periods | Yes | |
| § 63.8(c)(8) | CMS Out-of-Control Periods and Reporting | No | § 63.3920 requires reporting of CMS out-of-control periods. |
| § 63.8(d)-(e) | Quality Control Program and CMS Performance Evaluation | No | Subpart MMMM does not require the use of continuous emissions monitoring systems. |
| § 63.8(f)(1)-(5) | Use of an Alternative Monitoring Method | Yes | |
| § 63.8(f)(6) | Alternative to Relative Accuracy Test | No | Subpart MMMM does not require the use of continuous emissions monitoring systems. |
| § 63.8(g)(1)-(5) | Data Reduction | No | Sections 63.3967 and 63.3968 specify monitoring data reduction. |
| § 63.9(a)-(d) | Notification Requirements | Yes | |
| § 63.9(e) | Notification of Performance Test | Yes | Applies only to capture system and add-on control device performance tests at sources using these to comply with the standard. |
| § 63.9(f) | Notification of Visible Emissions/Opacity Test | No | Subpart MMMM does not have opacity or visible emissions standards. |
| § 63.9(g)(1)-(3) | Additional Notifications When Using CMS | No | Subpart MMMM does not require the use of continuous emissions monitoring systems. |
| § 63.9(h) | Notification of Compliance Status | Yes | Section 63.3910 specifies the dates for submitting the notification of compliance status. |
| § 63.9(i) | Adjustment of Submittal Deadlines | Yes | |
| § 63.9(j) | Change in Previous Information | Yes | |
| § 63.10(a) | Recordkeeping/Reporting—Applicability and General Information | Yes | |
| § 63.10(b)(1) | General Recordkeeping Requirements | Yes | Additional requirements are specified in §§ 63.3930 and 63.3931. |
| § 63.10(b)(2)(i)-(v) | Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS | Yes | Requirements for startup, shutdown, and malfunction records only apply to add-on control devices used to comply with the standard. |
| § 63.10(b)(2)(vi)-(xi) | | Yes | |

| Citation | Subject | Applicable to subpart MMMM | Explanation |
|---|---|---|---|
| § 63.10(b)(2)(xii) | Records | Yes | |
| § 63.10(b)(2)(xiii) | | No | Subpart MMMM does not require the use of continuous emissions monitoring systems. |
| § 63.10(b)(2)(xiv) | | Yes | |
| § 63.10(b)(3) | Recordkeeping Requirements for Applicability Determinations | Yes | |
| § 63.10(c)(1)-(6) | Additional Recordkeeping Requirements for Sources with CMS | Yes | |
| § 63.10(c)(7)-(8) | | No | The same records are required in § 63.3920(a)(7). |
| § 63.10(c)(9)-(15) | | Yes | |
| § 63.10(d)(1) | General Reporting Requirements | Yes | Additional requirements are specified in § 63.3920. |
| § 63.10(d)(2) | Report of Performance Test Results | Yes | Additional requirements are specified in § 63.3920(b). |
| § 63.10(d)(3) | Reporting Opacity or Visible Emissions Observations | No | Subpart MMMM does not require opacity or visible emissions observations. |
| § 63.10(d)(4) | Progress Reports for Sources With Compliance Extensions | Yes | |
| § 63.10(d)(5) | Startup, Shutdown, and Malfunction Reports | Yes | Applies only to add-on control devices at sources using these to comply with the standard. |
| § 63.10(e)(1)-(2) | Additional CMS Reports | No | Subpart MMMM does not require the use of continuous emissions monitoring systems. |
| § 63.10(e) (3) | Excess Emissions/CMS Performance Reports | No | Section 63.3920 (b) specifies the contents of periodic compliance reports. |
| § 63.10(e) (4) | COMS Data Reports | No | Subpart MMMM does not specify requirements for opacity or COMS. |
| § 63.10(f) | Recordkeeping/Reporting Waiver | Yes | |
| § 63.11 | Control Device Requirements/Flares | No | Subpart MMMM does not specify use of flares for compliance. |
| § 63.12 | State Authority and Delegations | Yes | |
| § 63.13 | Addresses | Yes | |
| § 63.14 | Incorporation by Reference | Yes | |
| § 63.15 | Availability of Information/Confidentiality | Yes | |

**Table 3 to Subpart MMMM of Part 63—Default Organic HAP Mass Fraction for Solvents and Solvent Blends**

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data and which match either the solvent blend name or the chemical abstract series (CAS) number. If a solvent blend matches both the name and CAS number for an entry, that entry's organic HAP mass fraction must be used for that solvent blend. Otherwise, use the organic HAP mass fraction for the entry matching either the solvent blend name or CAS number, or use the organic HAP mass fraction from table 4 to this subpart if neither the name or CAS number match.

| Solvent/solvent blend | CAS. No. | Average organic HAP mass fraction | Typical organic HAP, percent by mass |
|---|---|---|---|
| 1. Toluene | 108-88-3 | 1.0 | Toluene. |
| 2. Xylene(s) | 1330-20-7 | 1.0 | Xylenes, ethylbenzene. |
| 3. Hexane | 110-54-3 | 0.5 | n-hexane. |
| 4. n-Hexane | 110-54-3 | 1.0 | n-hexane. |
| 5. Ethylbenzene | 100-41-4 | 1.0 | Ethylbenzene. |
| 6. Aliphatic 140 | | 0 | None. |
| 7. Aromatic 100 | | 0.02 | 1% xylene, 1% cumene. |
| 8. Aromatic 150 | | 0.09 | Naphthalene. |
| 9. Aromatic naphtha | 64742-95-6 | 0.02 | 1% xylene, 1% cumene. |
| 10. Aromatic solvent | 64742-94-5 | 0.1 | Naphthalene. |
| 11. Exempt mineral spirits | 8032-32-4 | 0 | None. |
| 12. Ligroines (VM & P) | 8032-32-4 | 0 | None. |
| 13. Lactol spirits | 64742-89-6 | 0.15 | Toluene. |
| 14. Low aromatic white spirit | 64742-82-1 | 0 | None. |
| 15. Mineral spirits | 64742-88-7 | 0.01 | Xylenes. |
| 16. Hydrotreated naphtha | 64742-48-9 | 0 | None. |
| 17. Hydrotreated light distillate | 64742-47-8 | 0.001 | Toluene. |
| 18. Stoddard solvent | 8052-41-3 | 0.01 | Xylenes. |
| 19. Super high-flash naphtha | 64742-95-6 | 0.05 | Xylenes. |
| 20. Varsol ®solvent | 8052-49-3 | 0.01 | 0.5% xylenes, 0.5% ethylbenzene. |
| 21. VM & P naphtha | 64742-89-8 | 0.06 | 3% toluene, 3% xylene. |
| 22. Petroleum distillate mixture | 68477-31-6 | 0.08 | 4% naphthalene, 4% biphenyl. |

**Table 4 to Subpart MMMM of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups a**

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data.

| Solvent type | Average organic HAP mass fraction | Typical organic HAP, percent by mass |
|---|---|---|
| Aliphatic [b] | 0.03 | 1% Xylene, 1% Toluene, and 1% Ethylbenzene. |
| Aromatic [c] | 0.06 | 4% Xylene, 1% Toluene, and 1% Ethylbenzene. |

[a] Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart by either solvent blend name or CAS number and you only know whether the blend is aliphatic or aromatic.

[b] Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

[c] Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

**Appendix A to Subpart MMMM of Part 63—Alternative Capture Efficiency and Destruction Efficiency Measurement and Monitoring Procedures for Magnet Wire Coating Operations**

1.0 Introduction.

1.1 These alternative procedures for capture efficiency and destruction efficiency measurement and monitoring are intended principally for newer magnet wire coating machines where the control device is internal and integral to the oven so that it is difficult or infeasible to make gas measurements at the inlet to the control device.

1.2 In newer gas fired magnet wire ovens with thermal control (no catalyst), the burner tube serves as the control device (thermal oxidizer) for the process. The combustion of solvents in the burner tube is the principal source of heat for the oven.

1.3 In newer magnet wire ovens with a catalyst there is either a burner tube (gas fired ovens) or a tube filled with electric heating elements (electric heated oven) before the catalyst. A large portion of the solvent is often oxidized before reaching the catalyst. The combustion of solvents in the tube and across the catalyst is the principal source of heat for the oven. The internal catalyst in these ovens cannot be accessed without disassembly of the oven. This disassembly includes removal of the oven insulation. Oven reassembly often requires the installation of new oven insulation.

1.4 Some older magnet wire ovens have external afterburners. A significant portion of the solvent is oxidized within these ovens as well.

1.5 The alternative procedure for destruction efficiency determines the organic carbon content of the volatiles entering the control device based on the quantity of coating used, the carbon content of the volatile portion of the coating and the efficiency of the capture system. The organic carbon content of the control device outlet (oven exhaust for ovens without an external afterburner) is determined using Method 25 or 25A.

1.6 When it is difficult or infeasible to make gas measurements at the inlet to the control device, measuring capture efficiency with a gas-to-gas protocol (see § 63.3965(d)) which relies on direct measurement of the captured gas stream will also be difficult or infeasible. In these situations, capture efficiency measurement is more appropriately done with a procedure which does not rely on direct measurement of the captured gas stream.

1.7 Magnet wire ovens are relatively small compared to many other coating ovens. The exhaust rate from an oven is low and varies as the coating use rate and solvent loading rate change from job to job. The air balance in magnet wire ovens is critical to product quality. Magnet wire ovens must be operated under negative pressure to avoid smoke and odor in the workplace, and the exhaust rate must be sufficient to prevent over heating within the oven.

1.8 The liquid and gas measurements needed to determine capture efficiency and control device efficiency using these alternative procedures may be made simultaneously.

1.9 Magnet wire facilities may have many ( *e.g.,* 20 to 70 or more) individual coating lines each with its own capture and control system. With approval, representative capture efficiency and control device efficiency testing of one magnet wire coating machine out of a group of identical or very similar magnet wire coating machines may be performed rather than testing every individual magnet wire coating machine. The operating parameters must be established for each tested magnet wire coating machine during each capture efficiency test and each control device efficiency test. The operating parameters established for each tested magnet wire coating machine also serve as the operating parameters for untested or very similar magnet wire coating machines represented by a tested magnet wire coating machine.

2.0 Capture Efficiency.

2.1 If the capture system is a permanent total enclosure as described in § 63.3965(a), then its capture efficiency may be assumed to be 100 percent.

2.2 If the capture system is not a permanent total enclosure, then capture efficiency must be determined using the liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure in § 63.3965(c), or an alternative capture efficiency protocol (see § 63.3965(e)) which does not rely on direct measurement of the captured gas stream.

2.3 As an alternative to establishing and monitoring the capture efficiency operating parameters in § 63.3967(f), the monitoring described in either section 2.4 or 2.5, and the monitoring described in sections 2.6 and 2.7 may be used for magnet wire coating machines.

2.4 Each magnet wire oven must be equipped with an interlock mechanism which will stop or prohibit the application of coating either when any exhaust fan for that oven is not operating or when the oven experiences an over limit temperature condition.

2.5 Each magnet wire oven must be equipped with an alarm which will be activated either when any oven exhaust fan is not operating or when the oven experiences an over limit temperature condition.

2.6 If the interlock in 2.4 or the alarm in 2.5 is monitoring for over limit temperature conditions, then the temperature(s) that will trigger the interlock or the alarm must be included in the start-up, shutdown and malfunction plan and the interlock or alarm must be set to be activated when the oven reaches that temperature.

2.7 Once every 6 months, each magnet wire oven must be checked using a smoke stick or equivalent approach to confirm that the oven is operating at negative pressure compared to the surrounding atmosphere.

3.0 Control Device Efficiency.

3.1 Determine the weight fraction carbon content of the volatile portion of each coating, thinner, additive, or cleaning material used during each test run using either the procedure in section 3.2 or 3.3.

3.2 Following the procedures in Method 204F, distill a sample of each coating, thinner, additive, or cleaning material used during each test run to separate the volatile portion. Determine the weight fraction carbon content of each distillate using ASTM Method D5291-02, “Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants” (incorporated by reference, see § 63.14).

3.3 Analyze each coating, thinner, additive or cleaning material used during each test run using Method 311. For each volatile compound detected in the gas chromatographic analysis of each coating, thinner, additive, or cleaning material calculate the weight fraction of that whole compound in the coating, thinner, additive, or cleaning material. For each volatile compound detected in the gas chromatographic analysis of each coating, thinner, additive, or cleaning material calculate the weight fraction of the carbon in that compound in the coating, thinner, additive, or cleaning material. Calculate the weight fraction carbon content of each coating, thinner, additive, or cleaning material as the ratio of the sum of the carbon weight fractions divided by the sum of the whole compound weight fractions.

3.4 Determine the mass fraction of total volatile hydrocarbon ($TVH_i$) in each coating, thinner, additive, or cleaning material, i, used during each test run using Method 24. The mass fraction of total volatile hydrocarbon equals the weight fraction volatile matter ($W_v$ in Method 24) minus the weight fraction water ($W_w$ in Method 24), if any, present in the coating. The ASTM Method D6053-00, "Standard Test Method for Determination of Volatile Organic Compound (VOC) Content of Electrical Insulating Varnishes" (incorporated by reference, see § 63.14), may be used as an alternative to Method 24 for magnet wire enamels. The specimen size for testing magnet wire enamels with ASTM Method D6053-00 must be 2.0 ±0.1 grams.

3.5 Determine the volume ($VOL_i$) or mass ($MASS_i$) of each coating, thinner, additive, or cleaning material, i, used during each test run.

3.6 Calculate the total volatile hydrocarbon input ($TVHC_{inlet}$) to the control device during each test run, as carbon, using Equation 1:

$$TVHC_{inlet} = \sum_{i=1}^{n} (TVH_i \times VOL_i \times D_i \times CD_i) \qquad (Eq.\ 1)$$

where:

$TVH_i$ = Mass fraction of TVH in coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run.

$VOL_i$ = Volume of coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, liters.

$D_i$ = Density of coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, kg per liter.

$CD_i$ = Weight fraction carbon content of the distillate from coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, percent.

n = Number of coating, thinner, additive, and cleaning materials used in the coating operation during the test run.

3.7 If the mass, $MASS_i$, of each coating, solvent, additive, or cleaning material, i, used during the test run is measured directly then $MASS_i$ can be substituted for $VOL_i \times D_i$ in Equation 1 in section 3.6.

3.8 Determine the TVHC output ($TVHC_{outlet}$) from the control device, as carbon, during each test run using the methods in § 63.3966(a) and the procedure for determining $M_{fo}$ in § 63.3966(d). $TVHC_{outlet}$ equals $M_{fo}$ times the length of the test run in hours.

3.9 Determine the control device efficiency (DRE) for each test run using Equation 2:

$$DRE = \frac{(TVHC_{inlet} - TVHC_{outlet})}{TVHC_{inlet}} \times 100 \qquad (Eq.\ 2)$$

3.10 The efficiency of the control device is the average of the three individual test run values determined in section 3.9.

3.11 As an alternative to establishing and monitoring the destruction efficiency operating parameters for catalytic oxidizers in § 63.3967(b), the monitoring described in sections 3.12 and 3.13 may be used for magnet wire coating machines equipped with catalytic oxidizers.

3.12 During the performance test, you must monitor and record the temperature either just before or just after the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the

performance test to calculate and record the average temperature either just before or just after the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer and for the catalytic oxidizers in identical or very similar magnet wire coating machines represented by the tested magnet wire coating machine.

3.13 You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s). The plan must address, at a minimum, the elements specified in sections 3.14 and 3.15, and the elements specified in either (a) section 3.16 or (b) sections 3.17 and 3.18.

3.14 You must conduct a monthly external inspection of each catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

3.15 You must conduct an annual internal inspection of each accessible catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must replace the catalyst bed or take corrective action consistent with the manufacturer's recommendations. This provision does not apply to internal catalysts which cannot be accessed without disassembling the magnet wire oven.

3.16 You must take a sample of each catalyst bed and perform an analysis of the catalyst activity ( *i.e.,* conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. This sampling and analysis must be done within the time period shown in Table 1 below of the most recent of the last catalyst activity test or the last catalyst replacement. For example, if the warranty for the catalyst is 3 years and the catalyst was more recently replaced then the sampling and analysis must be done within the earlier of 26,280 operating hours or 5 calendar years of the last catalyst replacement. If the warranty for the catalyst is 3 years and the catalyst was more recently tested then the sampling and analysis must be done within the earlier of 13,140 operating hours or 3 calendar years of the last catalyst activity test. If problems are found during the catalyst activity test, you must replace the catalyst bed or take corrective action consistent with the manufacturer's recommendations.

Table 1—Catalyst Monitoring Requirements

| **If the catalyst was last (more recently) replaced and the warranty period is . . .** | **Then the time between catalyst replacement and the next catalyst activity test cannot exceed the earlier of . . .** | **And the catalyst was more recently tested, then the time between catalyst activity tests cannot exceed the earlier of . . .** |
|---|---|---|
| 1 year | 8,760 operating hours or 5 calendar years | 8,760 operating hours or 3 calendar years. |
| 2 years | 15,520 operating hours or 5 calendar years | 8,760 operating hours or 3 calendar years. |
| 3 years | 26,280 operating hours or 5 calendar years | 13,100 operating hours or 3 calendar years. |
| 4 years | 35,040 operating hours or 5 calendar years | 17,520 operating hours or 3 calendar years. |
| 5 or more years | 43,800 operating hours or 5 calendar years | 21,900 operating hours or 3 calendar years. |

3.17 During the performance test, you must determine the average concentration of organic compounds as carbon in the magnet wire oven exhaust stack gases ($C_c$ in Equation 1 in § 63.3966(d)) and the destruction efficiency of the catalytic oxidizer, and calculate the operating limit for oven exhaust stack gas concentration as follows. You must identify the highest organic HAP content coating used on this magnet wire coating machine or any identical or very similar magnet wire coating machines to which the same destruction efficiency test results will be applied. Calculate the percent emission reduction necessary to meet the magnet wire coating emission limit when using this coating. Calculate the average concentration of organic compounds as carbon in the magnet wire oven exhaust stack gases that would be equivalent to exactly meeting the magnet wire coating emissions limit when using the highest organic HAP content coating. The maximum operating limit for oven exhaust stack gas concentration equals 90 percent of this calculated concentration.

3.18 For each magnet wire coating machine equipped with a catalytic oxidizer you must perform an annual 10 minute test of the oven exhaust stack gases using EPA Method 25A. This test must be performed under steady state

operating conditions similar to those at which the last destruction efficiency test for equipment of that type (either the specific magnet wire coating machine or an identical or very similar magnet wire coating machine) was conducted. If the average exhaust stack gas concentration during the annual test of a magnet wire coating machine equipped with a catalytic oxidizer is greater than the operating limit established in section 3.17 then that is a deviation from the operating limit for that catalytic oxidizer. If problems are found during the annual 10-minute test of the oven exhaust stack gases, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

3.19 If a catalyst bed is replaced and the replacement catalyst is not of like or better kind and quality as the old catalyst, then you must conduct a new performance test to determine destruction efficiency according to § 63.3966 and establish new operating limits for that catalytic oxidizer unless destruction efficiency test results and operating limits for an identical or very similar unit (including consideration of the replacement catalyst) are available and approved for use for the catalytic oxidizer with the replacement catalyst.

3.20 If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

# Indiana Department of Environmental Management
# Office of Air Quality

## Technical Support Document (TSD) for a Minor Source Operating Permit Transitioning to a Part 70 Operating Permit

### Source Background and Description

| | |
|---|---|
| Source Name: | Wabash National L.P. (East Plant) |
| Source Location: | 3460 McCarty Lane, Lafayette, IN 47905 |
| County: | Tippecanoe |
| SIC Code: | 3715 (Truck Trailers) |
| Operation Permit No.: | T157-37253-00089 |
| Significant Source Modification No.: | 157-37455-00089 |
| Permit Reviewer: | Doug Logan |

### Source Definition

IDEM, OAQ has determined that the Wabash National, L.P. plant located at 3460 McCarty Lane, Lafayette (East) and the Wabash National, L.P. plant located at 3550 East County Road 350 South, Lafayette (South) are not part of the same major source and that the plants should be permitted as separate sources. The term “major source” is defined by rule at 326 Indiana Administrative Code (IAC) 2-7-1(22). In order for these two plants to be considered one major source, they must meet all three of the following criteria:

1) the plants must be under common ownership or common control;

2) the plants must have the same two digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and

3) the plants must be located on contiguous or adjacent properties.

The East Plant and the South Plant have the same owner. The two plants have the same two digit SIC code. There is no raw material, intermediate product, or final product that is transferred from one plant to the other, so there is no support relationship. The supervisor of each plant does report to the same manager. The direct distance between the two plants is approximately 2.5 miles. The travel distance between the two plants by road is more than 5 miles.

IDEM, OAQ determined that the East Plant and the South Plant are separate sources because they are not located on contiguous or adjacent properties. The two plants are 2.5 miles apart, the shortest route between the two plants is more than 5 miles, and there is no material or other output going from one plant to the other.

This determination was initially made under MSOP No. M157-10976-00089, issued on January 25, 2000.

### Description of Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) Two (2) surface coating operations, identified as STA-6R and STA-8R, constructed in 2015, with a maximum capacity of 1 trailer per hour, a maximum usage of 1.68 gals per trailer for each coating applied, and exhausting indoors.

(b) One (1) surface coating operation, identified as STA-9R, constructed in 2015, with a maximum capacity of 1 trailers per hour, a maximum usage of 2 gals per trailer for each coating applied, and exhausting indoors.

(c) One (1) caulking operation, constructed in 2015, with a maximum capacity of 1 trailer per hour, a maximum usage of 0.46 gals per trailer, and exhausting indoors.

(d) One (1) surface cleaning operation, constructed in 2015, with a maximum capacity of 1 trailer per hour, a maximum usage of 0.05 gals per trailer, and exhausting indoors.

(e) Five (5) welding stations, constructed in 2015, consisting of the following:

(1) Two (2) carbon steel (ER70S) welding stations, with a maximum electrode consumption of 10.45 lbs/hr, each.

(2) One (1) aluminum (ER4043) welding station, with a maximum electrode consumption of 10.45 lbs/hr.

(3) Two (2) stainless steel (ER309LSi) welding stations, with a maximum electrode consumption of 10.45 lbs/hr, each.

(f) Four (4) aluminum (ER4043) welding units, identified as Floor Welder, permitted in 2015, each with a maximum electrode consumption of 1.2 pounds per hour.

(g) Two (2) aluminum (ER4043) welding units, identified as Side Seam Welder, permitted in 2015, each with a maximum electrode consumption of 1.2 pounds per hour

(h) Two (2) aluminum (ER4043) welding units, identified as Mobile Welder, permitted in 2015, each with a maximum electrode consumption of 1.2 pounds per hour.

(i) Two (2) natural gas combustion furnaces, identified as TC-1 and TC-2, constructed in 2015, each with a maximum capacity of 0.83 MMBtu/hr, and exhausting indoors.

## Existing Approvals

The source was issued MSOP Renewal No. M157-20306-00089 on October 24, 2007. The source has since received the following approvals:

(a) Notice Only Change No. 157-26049-00089, issued on February 7, 2008

(b) Significant Permit Revision No. 157-35431-00089, issued on May 28, 2015

(c) Administrative Amendment No. 157-36297-00089, issued on October 2, 2015

## Enforcement Issues

There are no pending enforcement actions related to this modification.

## Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

## County Attainment Status

The source is located in Tippecanoe County.

| Pollutant | Designation |
|---|---|
| $SO_2$ | Better than national standards. |
| CO | Unclassifiable or attainment effective November 15, 1990. |
| $O_3$ | Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.[1] |
| $PM_{2.5}$ | Unclassifiable or attainment effective April 5, 2005, for the annual $PM_{2.5}$ standard. |
| $PM_{2.5}$ | Unclassifiable or attainment effective December 13, 2009, for the 24-hour $PM_{2.5}$ standard. |
| $PM_{10}$ | Unclassifiable effective November 15, 1990. |
| $NO_2$ | Cannot be classified or better than national standards. |
| Pb | Unclassifiable or attainment effective December 31, 2011. |
| [1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked | |

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides ($NO_x$) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and $NO_x$ emissions are considered when evaluating the rule applicability relating to ozone. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and $NO_x$ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Tippecanoe County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, $SO_2$, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants
Tippecanoe County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

## Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

## Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

## Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

| **Pollutant** | **Emissions** (ton/yr) |
|---|---|
| PM | 137.10 |
| $PM_{10}$ | 137.18 |
| $PM_{2.5}$ | 137.18 |
| $SO_2$ | 8.55E-03 |
| $NO_X$ | 1.43 |
| VOC | 246.14 |
| CO | 1.20 |
| **HAPs** | |
| single (xylenes) | 40.47 |
| **Total** | **70.12** |

(a) The potential to emit (as defined in 326 IAC 2-7-1(30)) of PM, PM10, PM2.5, and VOC is equal to or greater than 100 tons per year, each. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit.

(b) The potential to emit (as defined in 326 IAC 2-7-1(30)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(30)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

## Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

## Proposed Modification

**Description of Proposed Modification**

The Office of Air Quality (OAQ) has reviewed an application, submitted by Wabash National L.P. (East Plant) on June 1, 2016, relating to the transition of a Minor Source Operating Permit to a Part 70 Operating Permit. The transition includes modification of existing surface coating processes to increase production, and installation of new mobile roller-application coating, floor coating, bonding, scratch and dent repair, welding operations, cold cleaning degreasers, and natural gas combustion facilities.

The following is a list of the modified emission units and pollution control device(s):

(a) One (1) surface coating operation, identified as Parts Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of parts for1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack PB.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(b) One (1) surface coating operation, identified as Finish Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack FPB.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(c) One (1) surface coating operation, identified as Refinish Offline Paint Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.5 trailers per hour and a maximum usage of 2.00 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack ROPB.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(d) One (1) caulking operation, identified as Caulk Station, constructed in 2015 and approved in 2016 for modification, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(e) One (1) finished product surface cleaning operation, identified as Finish Cleaning Station, constructed in 2015 and approved in 2016 for modification, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 0.20 gallons of cleaning products per trailer, and exhausting indoors.

The following is a list of the new emission units and pollution control device(s):

(a) One (1) mobile roller application coating operation, identified as Mobile Roller Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 0.10 gallon per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(b) Bonding operations, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

(1) One (1) floor, roof, and sides bonding process, identified as BC-1 Station, with a maximum usage of 0,12 gallon per trailer, and exhausting indoors.

(2) One (1) D-ring bonding process, identified as BC-2 Station, with maximum usage of 0.49 gallons per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

(c) One (1) trailer floor coating operation, identified as Trailer Floor Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

(d) Scratch and dent repair operations, identified as Scratch & Dent Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

(1) One (1) touchup painting process, with a maximum usage of 0,02 gallon per trailer, using paint pens and exhausting indoors.

(2) One (1) dent repair process, with maximum usage of 0.04 gallons of body filler per trailer, and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, the dent repair process is considered part of an existing affected source.

(e) Welding operations, approved in 2016 for construction, consisting of the following:

(1) Two (2) carbon steel (ER70S) welding stations, with a maximum electrode consumption of 10.45 lbs/hr, each.

(2) Nine (9) Lincoln DC400 carbon steel (ER70S) welding stations, with a maximum electrode consumption of 12.16 pounds per hour, each.

(3) Two (2) stainless steel (ER309LSi) welding stations, with a maximum electrode consumption of 10.45 pounds per hour, each.

(4) One (1) aluminum (ER4043) welding station, with a maximum electrode consumption of 10.45 pounds per hour.

(5) Two (2) mobile aluminum (ER4043) welding stations, identified as Mobile Welder, with a maximum electrode consumption of 1.2 pounds per hour.

The following is a list of the new insignificant activities:

(a) Combustion related activities, as follows:

(1) Two (2) natural gas fired space heating units, identified as TC-3 and TC-4, approved in 2016 for construction, with a maximum heat input capacity of 0.83 MMBtu/hr, each, and exhausting indoors.

(b) Cold cleaner degreasers meeting the exemption levels specified in 326 IAC 2-1.1-3(e) or the 326 IAC 2-7-1(21)(E), whichever is lower, as follows:

(1) Two (2) cold cleaner degreasers, identified as PW-1 and PW-2, approved in 2016 for construction, with a maximum solvent usage of 50 gallons per year, each, and exhausting indoors.

(2) Two (2) Model 1055 automatic spray gun cleaners, approved in 2016 for construction, using a non-VOC solvent (acetone), and exhausting indoors.

Under 40 CFR 63, Subpart MMMM, this is considered part of an existing affected source.

**Source Status Prior to the Modification**

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

| | **Uncontrolled/Unlimited Potential To Emit of the Entire Source Prior to Modification (tons/year)** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Process/ Emission Unit | PM | PM10[1] | PM2.5[2] | $SO_2$ | NOx | VOC | CO | Worst Single HAP (xylene) | Total HAP |
| STA-6R | - | - | - | - | - | 24.50 | - | 2.54 | 3.38 |
| STA-8R | - | - | - | - | - | 24.50 | - | 2.54 | 3.38 |
| STA-9R | - | - | - | - | - | 29.17 | - | 3.02 | 4.03 |
| Caulking Operations | - | - | - | - | - | 0.24 | - | - | - |

| | Uncontrolled/Unlimited Potential To Emit of the Entire Source Prior to Modification (tons/year) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Process/ Emission Unit | PM | PM10[1] | PM2.5[2] | $SO_2$ | NOx | VOC | CO | Worst Single HAP (xylene) | Total HAP |
| Welding Operations** | 2.47 | 2.47 | 2.47 | - | - | - | - | - | 0.35 |
| Natural Gas Combustion** | 0.01 | 0.05 | 0.05 | 4.28E-03 | 0.71 | 0.04 | 0.60 | - | 0.01 |
| Surface Cleaning | - | - | - | - | - | 1.59 | - | - | - |
| **Total PTE of Entire Source Excluding Fugitives** | **2.48** | **2.52** | **2.52** | **4.28E-03** | **0.71** | **80.05** | **0.60** | **8.10** | **11.17** |
| Title V Major Source Thresholds | - | 100 | 100 | 100 | 100 | 100 | 100 | 25 | 10 |
| Fugitive Emissions | - | - | - | - | - | - | - | - | - |
| **Total PTE of Entire Source Including Fugitives** | **2.48** | **2.52** | **2.52** | **4.28E-03** | **0.71** | **80.05** | **0.60** | **8.10** | **11.17** |
| MSOP Threshold | 25 | 25 | 25 | 25 | 25 | 25 | - | - | - |

negl. = negligible
1. Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a "regulated air pollutant".
2. $PM_{2.5}$ listed is direct $PM_{2.5}$.

**Permit Level Determination – Part 70**

Pursuant to 326 IAC 2-1.1-1(12), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit. If the control equipment has been determined to be integral, the table reflects the PTE after consideration of the integral control device.

| | PTE Before Controls of the New Emission Units (ton/year) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Process / Emission Unit** | **PM** | **$PM_{10}$** | **$PM_{2.5}$** | **$SO_2$** | **$NO_X$** | **VOC** | **CO** | **Single HAP[1]** | **Combined HAPs** |
| Mobile Roller Coating | -- | -- | -- | -- | -- | 2.19 | -- | 3.11E-02 | 3.11E-02 |
| Floor Coating | -- | -- | -- | -- | -- | 36.47 | -- | 0.57 | 0.74 |
| Bonding | -- | -- | -- | -- | -- | 3.37 | -- | -- | 2.69 |
| Scratch & Dent Repair | -- | -- | -- | -- | -- | 1.13 | -- | 1.41E-02 | 1.62 |
| Welding operations | 4.54 | 4.54 | 4.54 | -- | -- | -- | -- | -- | 0.22 |
| Space heaters, TC-3 & TC-4 | 1.35E-02 | 5.42E-02 | 5.42E-02 | 4.28E-03 | 0.71 | 3.92E-02 | 0.60 | -- | 1.35E-02 |
| Degreasers, PW-1 & PW-2 | -- | -- | -- | -- | -- | 0.34 | -- | -- | 3.34E-04 |
| Total: | 4.56 | 4.60 | 4.60 | 4.28E-03 | 0.71 | 43.53 | 0.60 | 0.61 | 5.32 |

*Notes:*
*1. Source-wide worst case HAP, xylenes.*

Appendix A of this TSD reflects the unrestricted potential emissions of the modification.

| | **PTE Change of the Modified Emission Unit(s)/Process (ton/year)** Parts Booth (former STA-6R) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **PM** | **$PM_{10}$** | **$PM_{2.5}$** | **$SO_2$** | **$NO_X$** | **VOC** | **CO** | **Single HAP[1]** | **Combined HAPs** |
| PTE Before Modification | -- | -- | -- | -- | -- | 24.50 | -- | 2.54 | 3.38 |
| PTE After Modification | 47.22 | 47.22 | 47.22 | -- | -- | 64.04 | -- | 3.87 | 8.49 |
| PTE Increase From Modification | 47.22 | 47.22 | 47.22 | -- | -- | 39.53 | -- | 1.33 | 5.11 |

*Notes:*
*1. Source-wide worst case HAP, xylenes.*

| | **PTE Change of the Modified Emission Unit(s)/Process (ton/year)** Finish Booth (former STA-8R) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **PM** | **$PM_{10}$** | **$PM_{2.5}$** | **$SO_2$** | **$NO_X$** | **VOC** | **CO** | **Single HAP[1]** | **Combined HAPs** |
| PTE Before Modification | -- | -- | -- | -- | -- | 24.50 | -- | 2.54 | 3.38 |
| PTE After Modification | 47.22 | 47.22 | 47.22 | -- | -- | 64.04 | -- | 3.87 | 8.49 |
| PTE Increase From Modification | 47.22 | 47.22 | 47.22 | -- | -- | 39.53 | -- | 1.33 | 5.11 |

*Notes:*
*1. Source-wide worst case HAP, xylenes.*

| | **PTE Change of the Modified Emission Unit(s)/Process (ton/year)** Refinish Offline Paint Booth (former STA-9R) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **PM** | **$PM_{10}$** | **$PM_{2.5}$** | **$SO_2$** | **$NO_X$** | **VOC** | **CO** | **Single HAP[1]** | **Combined HAPs** |
| PTE Before Modification | -- | -- | -- | -- | -- | 29.17 | -- | 3.02 | 4.03 |
| PTE After Modification | 35.62 | 35.62 | 35.62 | -- | -- | 65.14 | -- | 28.88 | 43.28 |
| PTE Increase From Modification | 35.62 | 35.62 | 35.62 | -- | -- | 35.97 | -- | 25.85 | 39.25 |

*Notes:*
*1. Source-wide worst case HAP, xylenes.*

| | PTE Change of the Modified Emission Unit(s)/Process (ton/year) Caulking Operations | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **PM** | **$PM_{10}$** | **$PM_{2.5}$** | **$SO_2$** | **$NO_X$** | **VOC** | **CO** | **Single HAP[1]** | **Combined HAPs** |
| PTE Before Modification | -- | -- | -- | -- | -- | 0.24 | -- | -- | -- |
| PTE After Modification | -- | -- | -- | -- | -- | 4.06 | -- | 3.24 | 4.22 |
| PTE Increase From Modification | -- | -- | -- | -- | -- | 3.81 | -- | 3.24 | 4.22 |

*Notes:*
*1. Source-wide worst case HAP, xylenes.*

| | PTE Change of the Modified Emission Unit(s)/Process (ton/year) Surface Cleaning Operations | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **PM** | **$PM_{10}$** | **$PM_{2.5}$** | **$SO_2$** | **$NO_X$** | **VOC** | **CO** | **Single HAP[1]** | **Combined HAPs** |
| PTE Before Modification | -- | -- | -- | -- | -- | 1.59 | -- | -- | -- |
| PTE After Modification | -- | -- | -- | -- | -- | 5.29 | -- | -- | 0.22 |
| PTE Increase From Modification | -- | -- | -- | -- | -- | 3.70 | -- | -- | 0.22 |

*Notes:*
*1. Source-wide worst case HAP, xylenes.*

Appendix A of this TSD reflects the potential emissions of the modification in detail.

| | Total PTE Increase Due to the Modification (ton/year) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **PM** | **$PM_{10}$** | **$PM_{2.5}$** | **$SO_2$** | **$NO_X$** | **VOC** | **CO** | **Single HAP[1]** | **Combined HAPs** |
| PTE of New Emission units | 4.56 | 4.60 | 4.60 | 4.28E-03 | 0.71 | 43.53 | 0.60 | 0.61 | 5.32 |
| Parts Booth | 47.22 | 47.22 | 47.22 | -- | -- | 39.53 | -- | 1.33 | 5.11 |
| Finish Booth | 47.22 | 47.22 | 47.22 | -- | -- | 39.53 | -- | 1.33 | 5.11 |
| Refinish Offline Paint Booth | 35.62 | 35.62 | 35.62 | -- | -- | 35.97 | -- | 25.85 | 39.25 |
| Caulking operation | -- | -- | -- | -- | -- | 3.81 | -- | 3.24 | 4.22 |
| Surface cleaning operation | -- | -- | -- | -- | -- | 3.70 | -- | -- | 0.22 |
| **Total PTE of the Modification** | **134.62** | **134.66** | **134.66** | **4.28E-03** | **0.71** | **166.09** | **0.60** | **32.37** | **59.22** |

*Notes:*
*1. Source-wide worst case HAP, xylenes.*

Appendix A of this TSD reflects the potential emissions of the modification in detail.

(a) Pursuant to 326 IAC 2-7-10.5(g)(4), a Significant Source Modification is required because this modification has the potential to emit PM, PM10, direct PM2.5, and VOC at greater than or equal to twenty-five (25) tons per year, each.

(b) Pursuant to 326 IAC 2-7-10.5(g)(6), a Significant Source Modification is required because this modification has a potential to emit greater than or equal to ten (10) tons per year of a single HAP and twenty-five (25) tons per year of any combination of HAPs.

**Permit Level Determination – PSD**

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 transition, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

| | **Project Emissions (ton/year)** | | | | | | |
|---|---|---|---|---|---|---|---|
| | **PM** | **$PM_{10}$** | **$PM_{2.5}$**[1] | **$SO_2$** | **$NO_X$** | **VOC** | **CO** |
| Parts Booth | 47.22 | 47.22 | 47.22 | -- | -- | 39.53 | -- |
| Finish Booth | 47.22 | 47.22 | 47.22 | -- | -- | 39.53 | -- |
| Refinish Offline Paint Booth | 35.62 | 35.62 | 35.62 | -- | -- | 35.97 | -- |
| Mobile Roller Coating | -- | -- | -- | -- | -- | 2.19 | -- |
| Floor Coating | -- | -- | -- | -- | -- | 24.90 | -- |
| Caulking operation | -- | -- | -- | -- | -- | 3.81 | -- |
| Surface cleaning operation | -- | -- | -- | -- | -- | 3.70 | -- |
| Bonding | -- | -- | -- | -- | -- | 3.37 | -- |
| Welding | 4.54 | 4.54 | 4.54 | -- | -- | -- | -- |
| Scratch & Dent Repair | -- | -- | -- | -- | -- | 1.13 | -- |
| Degreasers | -- | -- | -- | -- | -- | 0.34 | -- |
| Combustion | 1.35E-02 | 5.42E-02 | 5.42E-02 | 4.28E-03 | 0.71 | 3.92E-02 | 0.60 |
| **Total for Modification** | **134.62** | **134.66** | **134.66** | **4.28E-03** | **0.71** | **154.51** | **0.60** |
| PSD Major Source Thresholds | 250 | 250 | 250 | 250 | 250 | 250 | 250 |

*Notes:*
*1. $PM_{2.5}$ listed is direct $PM_{2.5}$.*

(a) This modification to an existing minor PSD stationary source is not major because the emissions increase of each PSD regulated pollutant is less than the PSD major source threshold. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

**Potential to Emit After Issuance**

The source has opted to transition to a Part 70 source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this Part 70 operating permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

| Process/ Emission Unit | Potential To Emit of the Entire Source After Issuance (tons/year) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | PM | $PM_{10}$ [1] | $PM_{2.5}$ [2] | $SO_2$ | $NO_x$ | VOC | CO | Worst Single HAP (xylenes) | Total HAPs |
| Parts Booth | 47.22 | 47.22 | 47.22 | -- | -- | 64.04 | -- | 3.87 | 8.49 |
| Finish Booth | 47.22 | 47.22 | 47.22 | -- | -- | 64.04 | -- | 3.87 | 8.49 |
| Refinish Offline Paint Booth | 35.62 | 35.62 | 35.62 | -- | -- | 65.14 | -- | 28.88 | 43.28 |
| Mobile Roller Coating | -- | -- | -- | -- | -- | 2.19 | -- | 3.11E-02 | 3.11E-02 |
| Floor Coating | -- | -- | -- | -- | -- | 24.90 | -- | 0.57 | 0.74 |
| Caulking | -- | -- | -- | -- | -- | 4.06 | -- | 3.24 | 4.22 |
| Surface Cleaning | -- | -- | -- | -- | -- | 5.29 | -- | -- | 0.22 |
| Bonding | -- | -- | -- | -- | -- | 3.37 | -- | -- | 2.69 |
| Welding | 7.01 | 7.01 | 7.01 | -- | -- | | -- | -- | 0.31 |
| Scratch & Dent Repair | -- | -- | -- | -- | -- | 1.13 | -- | 1.41E-02 | 1.62 |
| Degreasers | -- | -- | -- | -- | -- | 0.34 | -- | -- | 3.35E-04 |
| Combustion | 2.71E-02 | 0.11 | 0.11 | 8.55E-03 | 1.43 | 7.84E-02 | 1.20 | -- | 2.69E-02 |
| **Total PTE of Entire Source** | **137.10** | **137.18** | **137.18** | **8.55E-03** | **1.43** | **234.57** | **1.20** | **40.47** | **70.12** |
| Title V Major Source Thresholds | NA | 100 | 100 | 100 | 100 | 100 | 100 | 10 | 25 |
| PSD Major Source Thresholds | 250 | 250 | 250 | 250 | 250 | 250 | 250 | NA | NA |
| Emission Offset/ Nonattainment NSR Major Source Thresholds | NA | NA | NA | NA | NA | NA | NA | NA | NA |

negl. = negligible
1 - Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a regulated air pollutant".
2 - $PM_{2.5}$ listed is direct $PM_{2.5}$.

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

**Federal Rule Applicability Determination**

The following federal rules are applicable to the source:

**CAM:**

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the new or modified units as part of this transition. None of the units use a control device to comply with any emissions limitations.

**NSPS:**

(b) 40 CFR 60, Subpart Dc
The four (4) space heating units, identified as TC-1 through TC-4, are not subject to the requirements of the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units ,40 CFR 60, Subpart Dc, because the units are not steam generating units as defined at 40 CFR 60.41c. Therefore, the requirements of the NSPS are not included in this permit.

(c) 40 CFR 60, Subpart MM
The three (3) surface coating operations, identified as Parts Booth, Finish Booth, and Refinish Offline Paint Booth, are not subject to the requirements of the Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations,40 CFR 60, Subpart MM, because semi- trailers are not automobiles or light duty trucks as the terms are defined at 40 CFR 60.391. Therefore, the requirements of the NSPS are not included in this permit.

**NESHAP:**

(d) 40 CFR 63, Subpart IIII
The three (3) surface coating operations, identified as Parts Booth, Finish Booth, and Refinish Offline Paint Booth, are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks, 40 CFR 63, Subpart IIII because the units do not coat new automobile or light - duty truck bodies or body parts for new automobiles or new light-duty trucks. Semi-trailers are not automobiles or light-duty trucks as the terms are defined at 40 CFR 63.3176. Therefore, the requirements of the NESHAP are not included in this permit.

(e) 40 CFR 63, Subpart MMMM
This source is subject to the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63, Subpart MMMM, which is incorporated by reference as 326 IAC 20-80. The subpart applies to units that perform surface coating of miscellaneous metal parts and products. Miscellaneous metal parts and products include, but are not limited to, metal components of the following types of products as well as the products themselves: motor vehicle parts and accessories, bicycles and sporting goods, recreational vehicles, extruded aluminum structural components, railroad cars, heavy duty trucks, medical equipment, lawn and garden equipment, electronic equipment, magnet wire, steel drums, industrial machinery, metal pipes, and numerous other industrial, household, and consumer products. Surface coating operations include cleaning materials applied to prepare the surface for coating application or to remove dried coating, or to clean coating equipment.

The following units are not subject to this subpart:

- The finished product cleaning operation, identified as Finish Cleaning Station, is not a coating operation as defined at 40 CFR 63.3981. Cleaning materials are not applied to prepare the surface for coating application or to remove dried coating, or to clean coating equipment.

- One (1) trailer floor coating operation, identified as Trailer Floor Station is not subject to this subpart because trailer floors are not metal parts or products. Trailer floors are wood.

- Scratch and dent repair operations, identified as Scratch & Dent Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

  (1) Pursuant to 40 CFR 63.3881(a)(1), the touchup painting process is not surface coating because the process uses handheld, non-refillable touch-up markers.

- Two (2) cold cleaner degreasers, identified as PW-1 and PW-2, are not subject to this subpart because PW-1 and PW-2 are not coating operations as defined at 40 CFR 63.3981. Cleaning materials are not applied to prepare the surface for coating application or to remove dried coating, or to clean coating equipment.

The units subject to this rule include the following:

- One (1) surface coating operation, identified as Parts Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of parts for1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack PB.

- One (1) surface coating operation, identified as Finish Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack FPB.

- One (1) surface coating operation, identified as Refinish Offline Paint Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.5 trailers per hour and a maximum usage of 2.00 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack ROPB.

- One (1) caulking operation, identified as Caulk Station, constructed in 2015 and approved in 2016 for modification, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

- One (1) mobile roller application coating operation, identified as Mobile Roller Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 0.10 gallon per trailer, and exhausting indoors.

- Bonding operations, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

  (1) One (1) floor, roof, and sides bonding process, identified as BC-1 Station, with a maximum usage of 0.12 gallon per trailer, and exhausting indoors.

  (2) One (1) D-ring bonding process, identified as BC-2 Station, with maximum usage of 0.49 gallon per trailer, and exhausting indoors.

- Scratch and dent repair operations, identified as Scratch & Dent Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

  (2) One (1) dent repair process, with maximum usage of 0.04 gallons of body filler per trailer, and exhausting indoors.

- Cold cleaner degreasers meeting the exemption levels specified in 326 IAC 2-1.1-3(e) or the 326 IAC 2-7-1(21)(E), whichever is lower, as follows:

  (1) Two (2) Model 1055 automatic spray gun cleaners, approved in 2016 for construction, using a non-VOC solvent (acetone), and exhausting indoors.

The emission units are subject to the following portions of Subpart MMMM:

(1) 40 CFR 63.3880
(2) 40 CFR 63.3881(a)(1)
(3) 40 CFR 63.3881(a)(2)
(4) 40 CFR 63.3881(b)
(5) 40 CFR 63.3882(a)
(6) 40 CFR 63.3882(b)
(7) 40 CFR 63.3882(e)
(8) 40 CFR 63.3883(c)(2)
(9) 40 CFR 63.3883(d)
(10) 40 CFR 63.3890(b)(1)
(11) 40 CFR 63.3891(a)
(12) 40 CFR 63.3891(b)
(13) 40 CFR 63.3892(a)
(14) 40 CFR 63.3893(a)
(15) 40 CFR 63.3900(a)(1)
(16) 40 CFR 63.3900(b)
(17) 40 CFR 63.3901
(18) 40 CFR 63.3910(a)
(19) 40 CFR 63.3910(b)
(20) 40 CFR 63.3910(c)
(21) 40 CFR 63.3920(a)
(22) 40 CFR 63.3930
(23) 40 CFR 63.3931
(24) 40 CFR 63.3940
(25) 40 CFR 63.3941
(26) 40 CFR 63.3942
(27) 40 CFR 63.3950
(28) 40 CFR 63.3951
(29) 40 CFR 63.3952
(30) 40 CFR 63.3980
(31) 40 CFR 63.3981
(32) Table 2 to Subpart MMMM of Part 63

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart MMMM.

(f) 40 CFR 63, Subpart PPPP

The source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products, 40 CFR 63, Subpart PPPP because the source coats metal parts and products and does not coat plastic. Therefore, the requirements of the NESHAP are not included in this permit.

(g) 40 CFR 63, Subpart QQQQ
The trailer floor coating operation is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products, 40 CFR 63, Subpart QQQQ because the unit does not coat wood building products as defined at 40 CFR 63.4781. Trailer floors are not used in the construction, either interior or exterior, of a residential, commercial, or institutional building. Therefore, the requirements of the NESHAP are not included in this permit.

(h) 40 CFR 63, Subpart DDDDD
The four (4) space heating units, identified as TC-1 through TC-4, are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD because the unit are not boilers or process heaters as defined at 40 CFR 63.7575. The units do not use controlled flame combustion having the primary purpose of recovering thermal energy in the form of steam or hot water, or transfer heat indirectly to a process material or to a heat transfer material for use in a process unit. Therefore, the requirements of the NESHAP are not included in this permit.

(i) 40 CFR 63, Subpart HHHHHH
The source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63, Subpart HHHHHH because the source is a major source of HAP emissions.

(j) 40 CFR 63, Subpart JJJJJJ
The four (4) space heating units, identified as TC-1 through TC-4, are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ because the source is a major source of HAP emissions.

(k) 40 CFR 63, Subpart XXXXXX
The welding operations are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories, 40 CFR 63, Subpart XXXXXX because the source is not primarily engaged in one of the nine source categories listed in 40 CFR 63.11514(a)(1) through (9) and the source is a major source of HAP emissions.

## State Rule Applicability Determination

The following state rules are applicable to the source due to the transition:

**326 IAC 2-2 (PSD)**
PSD applicability is discussed under the Potential to Emit After Issuance section.

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

(a) The operation of the Refinish Offline Paint Booth will emit greater than ten (10) tons per year for a single HAP and/or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 would apply to the unit, however, pursuant to 326 IAC 2-4.1-1(b)(2), because this unit is specifically regulated by NESHAP 40 CFR 63, Subpart MMMM which was issued pursuant to Section 112(d) of the CAA, this unit is exempt from the requirements of 326 2-4.1.

(b) The operation of all other emissions units at the source will each emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply to other units at the source.

**326 IAC 2-6 (Emission Reporting)**
Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially. The first report is due no later than July 1, 2017, and subsequent reports are due every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

**326 IAC 2-7-6(5) (Annual Compliance Certification)**
The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certification that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

**326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)**
The requirements of 326 IAC 6-2-4 are not applicable to the four (4) natural gas-fired space heating units, identified as TC-1, TC-2, TC-3, and TC-4, because the units do not use combustion for indirect heating as defined at 326 IAC 1-2-19.

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**

(a) Pursuant to 326 IAC 6-3-2(d), particulate from the assembly operations listed below shall be controlled by a dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

- One (1) surface coating operation, identified as Parts Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of parts for1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack PB.

- One (1) surface coating operation, identified as Finish Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack FPB.

- One (1) surface coating operation, identified as Refinish Offline Paint Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.5 trailers per hour and a maximum usage of 2.00 gallons of coating per unit, using dry filters for particulate control, and exhausting stack ROPB.

(b) Pursuant to 326 IAC 6-3-1(6), the mobile roller application system and trailer floor coating operation are exempt from 326 IAC 6-3 because the processes use roller-type application.

(c) Pursuant to 326 IAC 6-3-1(7), the caulking and bonding operations are exempt from 326 IAC 6-3 because the processes use flow coat-type application methods.

(d) Pursuant to 326 IAC 6-3-1(8), the scratch repair painting operations are exempt from 326 IAC 6-3 because the processes use brush-type application methods.

(e) The surface cleaning operations are exempt from 326 IAC 6-3 because the processes are not surface coating as defined at 326 IAC 6-3-1.5. The application of cleaners does not have the potential to emit particulate.

(f) The dent repair operations are exempt from 326 IAC 6-3 because the processes are not surface coating as defined at 326 IAC 6-3-1.5. The application of body filler does not have the potential to emit particulate.

(g) Pursuant to 326 IAC 6-3-1(b)(9), the welding operations are exempt from 326 IAC 6-3 because each process consumes less than 625 pounds of rod or wire per day. Rod or wire consumption for each welding process is shown in the table below.

| Welding Operation | Process Definition | Rod or Wire Consumption (lb/day) |
|---|---|---|
| Carbon steel (GMAW) | each station | 251 |
| Lincoln DC400 (carbon steel) (GMAW) | each station | 292 |
| Stainless steel (GMAW) | each station | 251 |
| Aluminum | each station | 251 |
| Mobile welders (aluminum) | each station | 29 |
| Floor Welder | 4 stations | 115 |
| Side Seam Welder | 2 stations | 58 |

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

(a) Pursuant to 326 IAC 8-1-6(1), the following units are not subject to 326 IAC 8-1-6 because the potential emissions of these facilities are less than twenty-five (25) tons of VOC per year, each:

- o One (1) mobile roller application coating operation, identified as Mobile Roller Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 0.10 gallon per trailer, and exhausting indoors.

- o One (1) surface cleaning operation, identified as Finish Cleaning Station, approved in 2015 for construction, with a maximum capacity of 1 trailer per hour, a maximum usage of 0.05 gals per trailer, and exhausting indoors.

- o Scratch and dent repair operations, identified as Scratch & Dent Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

  (1) One (1) touchup painting process, with a maximum usage of 0,02 gallon per trailer, using paint pens and exhausting indoors.

  (2) One (1) dent repair process, with maximum usage of 0.04 gallons of body filler per trailer, and exhausting indoors.

- o Cold cleaner degreasers meeting the exemption levels specified in 326 IAC 2-1.1-3(e) or the 326 IAC 2-7-1(21)(E), whichever is lower, as follows:

  (2) Two (2) Model 1055 automatic spray gun cleaners, approved in 2016 for construction, using a non-VOC solvent (acetone), and exhausting indoors.

(b) Pursuant to 326 IAC 8-1-6(3)(A), the following units are not subject to 326 IAC 8-1-6 because these units are regulated by other provisions of 326 IAC 8. These units are subject to 326 IAC 8-2-9.

- o One (1) surface coating operation, identified as Parts Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum

capacity of parts for1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack PB.

- o One (1) surface coating operation, identified as Finish Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack FPB.

- o One (1) caulking operation, identified as Caulk Station, constructed in 2015 and approved in 2016 for modification, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

- o One (1) mobile roller application coating operation, identified as Mobile Roller Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 0.10 gallon per trailer, and exhausting indoors.

- o Bonding operations, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

  (1) One (1) floor, roof, and sides bonding process, identified as BC-1 Station, with a maximum usage of 0.12 gallon per trailer, and exhausting indoors.

  (2) One (1) D-ring bonding process, identified as BC-2 Station, with maximum usage of 0.49 gallon per trailer, and exhausting indoors.

(c) Pursuant to 326 IAC 8-1-6(3)(A), the following units are not subject to 326 IAC 8-1-6 because the units are regulated by other provisions of 326 IAC 8. These units are subject to 326 IAC 8-3.

- o Cold cleaner degreasers meeting the exemption levels specified in 326 IAC 2-1.1-3(e) or the 326 IAC 2-7-1(21)(E), whichever is lower, as follows:

  (1) Two (2) cold cleaner degreasers, identified as PW-1 and PW-2, approved in 2016 for construction, with a maximum solvent usage of 50 gallons per year, each, and exhausting indoors.

(d) Pursuant to 326 IAC 8-1-6(3)(A), the following unit is not subject to 326 IAC 8-1-6 because the unit is regulated by other provisions of 326 IAC 8. This unit is subject to 326 IAC 8-10.

- o One (1) surface coating operation, identified as Refinish Offline Paint Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.5 trailers per hour and a maximum usage of 2.00 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack ROPB.

(e) The unlimited VOC potential emissions from the Trailer Floor Station is greater than twenty-five (25) tons per year. However, the source shall limit the VOC potential emissions from the floor coating operation to less than twenty-five (25) tons per year. Therefore, the floor coating operation is not subject to the requirements of 326 IAC 8-1-6.

In order to render the requirements of 326 IAC 8-1-6 not applicable, the floor coating operation shall be limited as follows:

(1) The total VOC input to the floor coating operation, including coatings, dilution solvents, and cleaning solvents shall not exceed twenty four and nine-tenths (24.9) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits shall limit the potential to emit VOC from the floor coating operation to less than twenty-five (25) tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities) not applicable.

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

The following units are subject to 326 IAC 8-2 because these are facilities, construction of which commenced after July 1, 1990, of the types described in sections 2 through 8, 9(a)(1), and 10 through 12 of this rule located in any county and that have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls. The units are subject to 326 IAC 8-2-9 because the source is located in a county other than Lake County or Porter County and coats metal parts or products under Standard Industrial Classification Code major group 37.

- One (1) surface coating operation, identified as Parts Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of parts for1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack PB.

- One (1) surface coating operation, identified as Finish Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.67 trailers per hour and a maximum usage of 2.50 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack FPB.

- One (1) caulking operation, identified as Caulk Station, constructed in 2015 and approved in 2016 for modification, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

- Bonding operations, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

  (1) One (1) floor, roof, and sides bonding process, identified as BC-1 Station, with a maximum usage of 0.12 gallon per trailer, and exhausting indoors.

  (2) One (1) D-ring bonding process, identified as BC-2 Station, with maximum usage of 0.49 gallon per trailer, and exhausting indoors.

(a) Pursuant to 326 IAC 8-2-9(c), the volatile organic compound (VOC) content of coating delivered to the applicator at the units listed above shall be limited to forty-two hundredths (0.42) kilogram per liter (three and five-tenths (3.5) pounds per gallon) of coating, excluding water.

(b) Pursuant to 326 IAC 8-2-9(f), work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not be limited to, the following:

  (1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.

  (2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.

  (3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.

  (4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.

(5) Minimize VOC emissions from the cleaning application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

The following facilities are not subject to 326 IAC 8-2-9 because the actual emissions of these facilities are less than or equal to fifteen (15) pounds of VOC per day, each, before add-on controls:

- One (1) mobile roller application coating operation, identified as Mobile Roller Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 0.10 gallon per trailer, and exhausting indoors.

- Scratch and dent repair operations, identified as Scratch & Dent Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour, consisting of the following:

  (1) One (1) touchup painting process, with a maximum usage of 0,02 gallon per trailer, using paint pens and exhausting indoors.

  (2) One (1) dent repair process, with maximum usage of 0.04 gallons of body filler per trailer, and exhausting indoors.

The following facilities are not subject to 326 IAC 8-2-9 because the facilities do not coat metal parts or products:

- One (1) trailer floor coating operation, identified as Trailer Floor Station, approved in 2016 for construction, with a maximum capacity of 1.67 trailers per hour and a maximum usage of 1.00 gallon per trailer, and exhausting indoors.

- One (1) surface cleaning operation, identified as Finish Cleaning Station, approved in 2015 for construction, with a maximum capacity of 1 trailer per hour, a maximum usage of 0.05 gals per trailer, and exhausting indoors.

The following facility is not subject to 326 IAC 8-2-9 because the facility is an automotive refinishing operation subject to 326 IAC 8-10:

- One (1) surface coating operation, identified as Refinish Offline Paint Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.5 trailers per hour and a maximum usage of 2.00 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack ROPB.

**326 IAC 8-3 (VOC Rules: Organic Solvent Degreasing Operations)**
Pursuant to 326 IAC 8-3-1, 326 IAC 8-3-2 is applicable to the two (2) cold cleaner degreasers, identified as PW-1 and PW-2 because the degreasers use solvents that contain one or more VOC's. The two (2) Model 1055 automatic spray gun cleaners are not subject to 326 IAC 8-3 because these units use acetone, a solvent that is not VOC.

(a) Pursuant to 326 IAC 8-3-1(c)(2)(A)(ii), cold cleaner degreasers without remote solvent reservoirs located that were constructed after July 1, 1990 and located anywhere in the state are subject to 326 IAC 8-3-2.

Pursuant to 326 IAC 8-3-2(a) (Cold Cleaner Degreaser Control and Equipment Operating Requirements), the Permittee shall ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

Pursuant to 326 IAC 8-3-2(b) the Permittee shall ensure that the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent used is insoluble in, and heavier than, water.

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:

(A) must be a solid, fluid stream; and

(B) shall be applied at a pressure that does not cause excessive splashing.

(b) Pursuant to 326 IAC 8-3-1(c)(3)(B), 326 IAC 8-3-8 applies to any person who sells,, offers for sale, uses, or manufactures solvent for use in cold cleaner degreasers, as follows:

(1) Pursuant to 326 IAC 8-3-8(b)(2), no person shall operate a cold cleaner degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(2) Pursuant to 326 IAC 8-3-8(c)(2), the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations.

(A) The name and address of the solvent supplier.

(B) The date of purchase.

(C) The type of solvent purchased.

(D) The total volume of the solvent purchased.

(E) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

Pursuant to 326 IAC 8-3-8(d), these records shall be retained on-site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period

**326 IAC 8-10 (Automobile Refinishing)**
Pursuant to 326 IAC 8-10-1(a)(2)(B), the source is subject to the requirements of 326 IAC 8-10 (Automobile Refinishing), because the source operates a facility, as defined in 326 IAC 1-2-27, that refinishes motor vehicles, motor vehicle parts, motor vehicle components, or mobile equipment, as defined in section 2(25) and 2(26) of this rule. The facility is used to refinish mobile equipment to repair damage that occurs to trailers ready for delivery that are placed in an outdoor storage area after manufacturing and before delivery to the customer. Sources of damage may include extreme weather, such as hail, or handling. The facility subject to this rule is:

o One (1) surface coating operation, identified as Refinish Offline Paint Booth, constructed in 2015 and approved in 2016 for modification with a single application system with a maximum capacity of 1.5 trailers per hour and a maximum usage of 2.00 gallons of coating per unit, using dry filters for particulate control, and exhausting to stack ROPB.

**Compliance Determination and Monitoring Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

The Compliance Determination Requirements applicable to this source are as follows:

(a) The miscellaneous metal parts coating operations have applicable compliance determination conditions as specified below:

(1) Compliance with the VOC content and input limitations shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ reserves the authority to determine compliance using

Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

(b) The spray surface coating operations (Parts Booth, Finish Booth, and Refinish Offline Paint Booth) have applicable compliance determination conditions as specified below:

(1) Dry filters shall be in operation and control emissions at all times the booths are in operation.

(c) The automotive refinishing operations have applicable compliance determination conditions as specified below:

(1) Pursuant to 326 IAC 8-10-7, compliance with the VOC content limits shall be determined pursuant to the applicable test methods and requirements of 326 IAC 8-1-4 and 40 CFR 60, Appendix A. The Permittee may use data provided with coatings or surface preparation products formulation information such as the container label, product data sheets, and MSDS sheet. IDEM, OAQ and the U.S. EPA may require VOC content determination and verification of any coating or surface preparation product using 40 CFR 60, Appendix A, Method 24. In the event of any inconsistency between 40 CFR 60, Appendix A, Method 24 and formulation data, 40 CFR 60, Appendix A, Method 24 shall govern.

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

| Emissions Unit/ID | Control | Operating Parameter | Monitoring Frequency | Range | Excursions and Exceedances |
|---|---|---|---|---|---|
| Parts Booth, Finish Booth, and Refinish Offline Paint Booth | Dry Filters | Initial Operator Training | Within 60 days of issuance of permit T157-37253-00089 or upon hire | Normal-Abnormal | Response Steps |
| | | Operator Refresher Training | Annual | | |
| | | Maintenance Record Keeping | Non-routine maintenance on units with air flow rate > 4,000 acfm | | |

These monitoring conditions are necessary because the control devices for the facilities must operate properly to ensure compliance with 326 IAC 6-3(Particulate Emission Limitations for Manufacturing Processes).

## Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on June 1, 2016.

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 157-37455-00089. The operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Operating Permit No. 157-37253-00089.

The staff recommends to the Commissioner that this Part 70 Operating Permit be approved.

**IDEM Contact**

(a) Questions regarding this proposed permit can be directed to Doug Logan at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5328 or toll free at 1-800-451-6027 extension 4-5328.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

**Appendix A: Emission Calculations**
**PTE Summary**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

| Uncontrolled Potential to Emit (tons/yr) | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Emission Unit** | **PM** | **PM10** | **PM2.5**[1] | **$SO_2$** | **NOx** | **VOC** | **CO** |
| Parts Booth | 47.22 | 47.22 | 47.22 | -- | -- | 64.04 | -- |
| Finish Booth | 47.22 | 47.22 | 47.22 | -- | -- | 64.04 | -- |
| Refinish Offline Paint Booth | 35.62 | 35.62 | 35.62 | -- | -- | 65.14 | -- |
| Mobile Roller Coating | -- | -- | -- | -- | -- | 2.19 | -- |
| Floor Coating | -- | -- | -- | -- | -- | 36.47 | -- |
| Caulking | -- | -- | -- | -- | -- | 4.06 | -- |
| Surface Cleaning | -- | -- | -- | -- | -- | 5.29 | -- |
| Bonding | -- | -- | -- | -- | -- | 3.37 | -- |
| Welding | 7.01 | 7.01 | 7.01 | -- | -- | -- | -- |
| Scratch & Dent Repair | -- | -- | -- | -- | -- | 1.13 | -- |
| Degreasers | -- | -- | -- | -- | -- | 0.34 | -- |
| Combustion | 2.71E-02 | 0.11 | 0.11 | 8.55E-03 | 1.43 | 7.84E-02 | 1.20 |
| **Total** | **137.10** | **137.18** | **137.18** | **8.55E-03** | **1.43** | **246.14** | **1.20** |

** PM2.5 listed is direct PM2.5*

| Potential to Emit after Issuance (tons/yr)[2] | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Emission Unit** | **PM** | **PM10** | **PM2.5**[1] | **$SO_2$** | **NOx** | **VOC** | **CO** |
| Parts Booth | 47.22 | 47.22 | 47.22 | -- | -- | 64.04 | -- |
| Finish Booth | 47.22 | 47.22 | 47.22 | -- | -- | 64.04 | -- |
| Refinish Offline Paint Booth | 35.62 | 35.62 | 35.62 | -- | -- | 65.14 | -- |
| Mobile Roller Coating | -- | -- | -- | -- | -- | 2.19 | -- |
| Floor Coating | -- | -- | -- | -- | -- | 24.90 | -- |
| Caulking | -- | -- | -- | -- | -- | 4.06 | -- |
| Surface Cleaning | -- | -- | -- | -- | -- | 5.29 | -- |
| Bonding | -- | -- | -- | -- | -- | 3.37 | -- |
| Welding | 7.01 | 7.01 | 7.01 | -- | -- | -- | -- |
| Scratch & Dent Repair | -- | -- | -- | -- | -- | 1.13 | -- |
| Degreasers | -- | -- | -- | -- | -- | 0.34 | -- |
| Combustion | 2.71E-02 | 0.11 | 0.11 | 8.55E-03 | 1.43 | 7.84E-02 | 1.20 |
| **Total** | **137.10** | **137.18** | **137.18** | **8.55E-03** | **1.43** | **234.57** | **1.20** |

*Notes:*

*1. PM2.5 listed is direct PM2.5*

*2. The shaded cells indicate where limits are included.*

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

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

| Uncontrolled Potential to Emit (tons/yr) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Emission Unit** | **Parts Booth** | **Finish Booth** | **Refinish Booth** | **Mobile Coating** | **Floor Coating** | **Caulking** | **Surface Cleaning** | **Bonding** | **Welding** | **Scratch & Dent** | **Degreasers** | **Combustion** | **Total HAP** |
| **Organic HAPs** | | | | | | | | | | | | | |
| Benzene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.99E-05 | 2.99E-05 |
| Cumene | 0.29 | 0.29 | 0.23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.82 |
| Dichlorobenzene | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.71E-05 | 1.71E-05 |
| DMA[1] | -- | -- | -- | -- | -- | -- | -- | 0.34 | -- | -- | -- | -- | 0.34 |
| Ethylbenzene | 0.57 | 0.57 | 4.77 | -- | 8.68E-02 | 0.85 | -- | -- | -- | 1.39E-02 | -- | -- | 6.87 |
| Formaldehyde | -- | -- | 4.41E-02 | -- | -- | -- | -- | -- | -- | -- | -- | 1.07E-03 | 4.51E-02 |
| Glycol ethers | 8.12 | 8.12 | 6.34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 22.57 |
| n-Hexane | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.57E-02 | 2.57E-02 |
| HMDI[2] | 1.32E-02 | 1.32E-02 | 1.03E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.68E-02 |
| Methanol | -- | -- | 1.06E-02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.06E-02 |
| MDI[3] | -- | -- | -- | -- | -- | 0.26 | -- | -- | -- | -- | -- | -- | 0.26 |
| MIBK[4] | -- | -- | 5.71 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.71 |
| MMA[5] | -- | -- | -- | -- | -- | -- | -- | 2.36 | -- | -- | -- | -- | 2.36 |
| Naphthalene | 2.43 | 2.43 | 1.89 | -- | 4.94E-02 | -- | 0.22 | -- | -- | -- | -- | -- | 7.02 |
| Styrene | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.75 | -- | -- | 0.75 |
| Toluene | 4.08 | 4.08 | 25.72 | -- | 8.68E-02 | -- | 2.19E-03 | -- | -- | 0.83 | 3.35E-04 | 4.85E-05 | 34.80 |
| Xylenes | 3.87 | 3.87 | 28.88 | 3.11E-02 | 0.57 | 3.24 | -- | -- | -- | 1.41E-02 | -- | -- | 40.47 |
| **Inorganic HAPs** | | | | | | | | | | | | | |
| Cadmium | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.57E-05 | 1.57E-05 |
| Chromium | -- | -- | -- | -- | -- | -- | -- | -- | 6.62E-04 | -- | -- | 2.00E-05 | 6.82E-04 |
| Cobalt | 3.49E-02 | 3.49E-02 | 3.60E-02 | -- | -- | -- | -- | -- | -- | 1.39E-03 | -- | -- | 0.11 |
| Lead | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.13E-06 | 7.13E-06 |
| Manganese | 4.87E-02 | 4.87E-02 | 3.80E-02 | -- | -- | -- | -- | -- | 0.31 | -- | -- | 5.42E-06 | 0.44 |
| Nickel | -- | -- | -- | -- | -- | -- | -- | -- | 6.62E-04 | -- | -- | 2.99E-05 | 6.92E-04 |
| Phosphorus | 0.18 | 0.18 | 0.30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.65 |
| **Total Emissions** | **8.49** | **8.49** | **43.28** | **3.11E-02** | **0.74** | **4.22** | **0.22** | **2.69** | **0.31** | **1.62** | **3.35E-04** | **2.69E-02** | **70.12** |

*Notes:*

*1. DMA - N,N-Dimethylaniline (CASRN 121-69-7)*

*2. HMDI - Hexamethylene-1,6-diisocyanate (CASRN 822-06-0)*

*3. MDI - Methylene diphenyl diisocyanate (CASRN 101-68-8)*

*4. MIBK - Methyl isobutyl ketone (CASRN 108-10-1)*

*5. MMA - Methyl methacrylate (CASRN 80-62-6)*

**Appendix A: Emission Calculations**
**Modification Summary**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**Potential to Emit of the Modified Units Before this Modification (tons/yr)[1]**

| Emission Unit | PM | PM10 | PM2.5[2] | $SO_2$ | NOx | VOC | CO | Single HAP[3] | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|
| STA-6R (now Parts Booth) | 0 | 0 | 0 | 0 | 0 | 24.50 | 0 | 2.54 | 3.38 |
| STA-8R (now Finish Booth) | 0 | 0 | 0 | 0 | 0 | 24.50 | 0 | 2.54 | 3.38 |
| STA-9R (now Refinish Offline Paint Booth) | 0 | 0 | 0 | 0 | 0 | 29.17 | 0 | 3.02 | 4.03 |
| Caulking Operations | 0 | 0 | 0 | 0 | 0 | 0.24 | 0 | 0 | 0 |
| Surface Cleaning | 0 | 0 | 0 | 0 | 0 | 1.59 | 0 | 0 | 0 |

**Potential to Emit of the Modified Units After this Modification (tons/yr)**

| Emission Unit | PM | PM10 | PM2.5[2] | $SO_2$ | NOx | VOC | CO | Single HAP[3] | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|
| Parts Booth | 47.22 | 47.22 | 47.22 | 0 | 0 | 64.04 | 0 | 3.87 | 8.49 |
| Finish Booth | 47.22 | 47.22 | 47.22 | 0 | 0 | 64.04 | 0 | 3.87 | 8.49 |
| Refinish Offline Paint Booth | 35.62 | 35.62 | 35.62 | 0 | 0 | 65.14 | 0 | 28.88 | 43.28 |
| Caulking Operations | 0 | 0 | 0 | 0 | 0 | 4.06 | 0 | 3.24 | 4.22 |
| Surface Cleaning | 0 | 0 | 0 | 0 | 0 | 5.29 | 0 | 0 | 0.22 |

**Increased Potential to Emit of the Modified Units (tons/yr)[4]**

| Emission Unit | PM | PM10 | PM2.5[2] | $SO_2$ | NOx | VOC | CO | Single HAP[3] | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|
| Parts Booth | 47.22 | 47.22 | 47.22 | 0 | 0 | 39.53 | 0 | 1.33 | 5.11 |
| Finish Booth | 47.22 | 47.22 | 47.22 | 0 | 0 | 39.53 | 0 | 1.33 | 5.11 |
| Refinish Offline Paint Booth | 35.62 | 35.62 | 35.62 | 0 | 0 | 35.97 | 0 | 25.85 | 39.25 |
| Caulking Operations | 0 | 0 | 0 | 0 | 0 | 3.81 | 0 | 3.24 | 4.22 |
| Surface Cleaning | 0 | 0 | 0 | 0 | 0 | 3.70 | 0 | 0 | 0.22 |
| **Total** | **130.06** | **130.06** | **130.06** | **0** | **0** | **122.56** | **0** | **31.76** | **53.91** |

**Uncontrolled Potential to Emit of the New Units (tons/yr)**

| Emission Unit | PM | PM10 | PM2.5[2] | $SO_2$ | NOx | VOC | CO | Single HAP[3] | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|
| Mobile roller coating operation | -- | -- | -- | -- | -- | 2.19 | -- | 3.11E-02 | 3.11E-02 |
| Floor coating | -- | -- | -- | -- | -- | 36.47 | -- | 0.57 | 0.74 |
| Bonding operations | -- | -- | -- | -- | -- | 3.37 | -- | -- | 2.69 |
| Scratch & dent repair | -- | -- | -- | -- | -- | 1.13 | -- | 1.41E-02 | 1.62 |
| Welding operations | 4.54 | 4.54 | 4.54 | -- | -- | -- | -- | -- | 0.22 |
| Space heaters, TC-3 & TC-4 | 1.35E-02 | 5.42E-02 | 5.42E-02 | 4.28E-03 | 0.71 | 3.92E-02 | 0.60 | -- | 1.35E-02 |
| Degreasers, PW-1 & PW-2 | -- | -- | -- | -- | -- | 0.34 | -- | -- | 3.35E-04 |
| **Total** | **4.56** | **4.60** | **4.60** | **4.28E-03** | **0.71** | **43.53** | **0.60** | **0.61** | **5.32** |

**Uncontrolled Potential to Emit of this Modification (tons/yr)**

| Emission Unit | PM | PM10 | PM2.5[2] | $SO_2$ | NOx | VOC | CO | Single HAP[3] | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|
| PTE of new units (including fugitives) | 4.56 | 4.60 | 4.60 | 4.28E-03 | 0.71 | 43.53 | 0.60 | 0.61 | 5.32 |
| Increased PTE of the modified units | 130.06 | 130.06 | 130.06 | 0 | 0 | 122.56 | 0 | 31.76 | 53.91 |
| **Total PTE of this Modification** | **134.62** | **134.66** | **134.66** | **4.28E-03** | **0.71** | **166.09** | **0.60** | **32.37** | **59.22** |

*Notes:*
*1. Source: TSD App A, M157-36297-00089, issued October 15, 2015*
*2. PM2.5 listed is direct PM2.5*
*3. Source-wide worst case single HAP, xylenes*
*4. Increased PTE of the modified units equals the greater of 0 or [PTE After - PTE Before]*

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Parts Booth**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**1. VOC and PM**

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Topcoat and Topcoat Additives | | | | | | | | | | | | | | | | | | | | | |
| R-Cure 800 Wabash Dup3058 Premium Shadow Red[3] | KPR0645 | 8.57 | 42.04% | 7.61% | 0% | 34.43% | 9.87% | 0% | 50.18% | 1.79 | 1.67 | 71.70 | 2.95 | 2.95 | 8.81 | 211.56 | 38.61 | 16.25 | airless | 75% | metal |
| urethane part B[4,5] | 53-X145B | 8.84 | 28.54% | 0% | 0% | 28.54% | 0% | 0% | 65.81% | 0.51 | 1.67 | 20.49 | 2.52 | 2.52 | 2.15 | 51.68 | 9.43 | 5.90 | airless | 75% | metal |
| | | | | | | | | | | | *Total of this two-part coating* | *92.18* | *2.86* | *2.86* | *10.97* | *263.24* | *48.04* | *22.15* | | | |
| R-Cure 800 Dun1015 Red, [3,5] | KPR0696 | 8.63 | 42.37% | 10.18% | 0% | 32.19% | 13.30% | 0% | 48.92% | 1.79 | 1.67 | 71.70 | 2.78 | 2.78 | 8.30 | 199.18 | 36.35 | 16.27 | airless | 75% | metal |
| urethane part B[5] | 53-X145B | 8.84 | 28.54% | 0% | 0% | 28.54% | 0% | 0% | 65.81% | 0.51 | 1.67 | 20.49 | 2.52 | 2.52 | 2.15 | 51.68 | 9.43 | 5.90 | airless | 75% | metal |
| | | | | | | | | | | | *Total of this two-part coating* | *92.18* | *2.72* | *2.72* | *10.45* | *250.86* | *45.78* | *22.17* | | | |
| Duraspar 420 Wabash White DTM[3] | AAW0448 | 13.81 | 21.48% | 2.46% | 0% | 19.02% | 5.14% | 0% | 57.86% | 2.30 | 1.67 | 92.18 | 2.63 | 2.63 | 10.09 | 242.14 | 44.19 | **45.61** | airless | 75% | metal |
| Duraspar 420 Wabash Gray 2.8 VOC DTM[3] | AAAW930 | 13.52 | 22.23% | 2.74% | 0% | 19.49% | 5.61% | 0% | 57.54% | 2.30 | 1.67 | 92.18 | 2.64 | 2.64 | 10.12 | 242.91 | 44.33 | 44.22 | airless | 75% | metal |
| Duraspar 430 Crete Red | AARW623 | 9.52 | 36.38% | 0% | 0% | 36.38% | 0% | 0% | 51.80% | 2.30 | 1.67 | 92.18 | 3.46 | 3.46 | 13.30 | 319.27 | 58.27 | 25.47 | airless | 75% | metal |
| Duraspar 430 Cloud Silver Metallic | AAMW338 | 9.65 | 35.15% | 0% | 0% | 35.15% | 0% | 0% | 52.51% | 2.30 | 1.67 | 92.18 | 3.39 | 3.39 | 13.03 | 312.69 | 57.07 | 26.32 | airless | 75% | metal |
| Duraspar 430 Black Low Gloss | AAAW828 | 9.79 | 35.43% | 0% | 0% | 35.43% | 0% | 0% | 51.78% | 2.30 | 1.67 | 92.18 | 3.47 | 3.47 | 13.32 | 319.75 | 58.35 | 26.59 | airless | 75% | metal |
| Duraspar 430 Werner Dark Blue Metallic | AAMW423 | 9.83 | 33.73% | 0% | 0% | 33.73% | 0% | 0% | 53.81% | 2.30 | 1.67 | 92.18 | 3.32 | 3.32 | 12.74 | 305.65 | 55.78 | 27.40 | airless | 75% | metal |
| Duraspar 430 Green DU1317 | AAGK360 | 9.65 | 34.57% | 0% | 0% | 34.57% | 0% | 0% | 53.59% | 2.30 | 1.67 | 92.18 | 3.34 | 3.34 | 12.81 | 307.53 | 56.12 | 26.56 | airless | 75% | metal |
| Duraspar 430 Wabash Black 3.5 VOC DTM | AAAW927 | 12.15 | 28.71% | 0% | 0% | 28.71% | 0% | 0% | 52.00% | 2.30 | 1.67 | 92.18 | 3.49 | 3.49 | 13.40 | 321.56 | 58.69 | 36.43 | airless | 75% | metal |
| Black Fast Dry HS DTM | AAA0631 | 12.40 | 28.17% | 0% | 0% | 28.17% | 0% | 0% | 51.05% | 2.30 | 1.67 | 92.18 | 3.49 | 3.49 | 13.42 | 322.01 | 58.77 | 37.46 | airless | 75% | metal |
| Z Shield 2222 White Enamel[3] | 0217WW14-LVOC | 8.89 | 41.30% | 7.01% | 0% | 34.29% | 9.43% | 0% | 41.30% | 2.30 | 1.67 | 92.18 | 3.05 | 3.05 | 11.71 | 281.01 | 51.28 | 21.95 | airless | 75% | metal |
| | | | | | | | | | | | ***Worst Case Topcoat and Topcoat Additives*** | | ***3.49*** | | ***13.42*** | ***322.01*** | ***58.77*** | ***45.61*** | | | |

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primers | | | | | | | | | | | | | | | | | | | | | |
| High Solids Air Dry Primer, Gray | E61AC134 | 11.35 | 29.34% | 0% | 0% | 29.34% | 0% | 0% | 52.00% | 2.30 | 1.67 | 92.18 | 3.33 | 3.33 | 12.79 | 306.98 | 56.02 | 33.73 | airless | 75% | metal |

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Undercoating | | | | | | | | | | | | | | | | | | | | | |
| Z Guard 10,000 Black Undercoating[3] | 0353W-XL3 | 11.57 | 17.64% | 4.10% | 0% | 13.54% | 7.02% | 0% | 69.25% | 2.30 | 1.67 | 92.18 | 1.57 | 1.57 | 6.02 | 144.41 | 26.36 | 40.08 | airless | 75% | metal |
| ZPG-1017F Low V.O.C.[3] | 0352LVOC | 12.10 | 13.55% | 0.53% | 0% | 13.02% | 0.97% | 0% | 78.94% | 2.30 | 1.67 | 92.18 | 1.58 | 1.58 | 6.05 | 145.23 | 26.50 | 44.00 | airless | 75% | metal |
| Z-C Plate[3] | 0217WCP4 | 9.97 | 55.00% | 20.00% | 0% | 35.00% | 30.80% | 0% | 15.20% | 2.30 | 1.67 | 92.18 | 3.49 | 3.49 | 13.40 | 321.68 | 58.71 | 18.87 | airless | 75% | metal |
| Z Guard 9000[3] | 0353M | 11.00 | 24.00% | 7.00% | 0% | 17.00% | 12.00% | 0% | 60.10% | 2.30 | 1.67 | 92.18 | 1.87 | 1.87 | 7.18 | 172.38 | 31.46 | 35.16 | airless | 75% | metal |
| | | | | | | | | | | | ***Worst Case Undercoating*** | | ***3.49*** | | ***13.40*** | ***321.68*** | ***58.71*** | ***44.00*** | | | |

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sealants & Other Coatings | | | | | | | | | | | | | | | | | | | | | |
| BC 1218-61 Gray | BC 1218-61 Gray | 9.17 | 20.00% | 0% | 0% | 20.00% | 0% | 0% | 68.00% | 2.30 | 1.67 | 92.18 | 1.83 | 1.83 | 7.05 | 169.14 | 30.87 | 30.87 | airless | 75% | metal |
| ZPG-9011 Green Sealant | ZPG-9011 | 9.06 | 38.00% | 0% | 0% | 38.00% | 0% | 0% | 46.20% | 2.30 | 1.67 | 92.18 | 3.44 | 3.44 | 13.22 | 317.37 | 57.92 | 23.63 | airless | 75% | metal |
| ZPG-9035 Orange[5] | ZPG-9035 Orange | 7.26 | 60.90% | 12.90% | 0% | 48.00% | 13.41% | 0% | 36.59% | 2.30 | 1.67 | 92.18 | 3.48 | 3.48 | 13.39 | 321.24 | 58.63 | 11.94 | airless | 75% | metal |
| | | | | | | | | | | | ***Worst Case Sealants & Other Coatings*** | | ***3.48*** | | ***13.39*** | ***321.24*** | ***58.63*** | ***30.87*** | | |
| | | | | | | | | | | | **Worst-case Totals for Airless Applied Spray Gun Applied (booth equipped with 1 gun):** | | | | **13.42** | **322.01** | **58.77** | **45.61** | | |

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aerosol cold galvanizing compound | 10000 | 10.01 | 56.00% | 20% | 0% | 36.00% | 30.31% | 0% | 56.00% | 0.20 | 1.67 | 8.02 | 3.60 | 3.60 | **1.20** | **28.89** | **5.27** | **1.61** | airless | 75% | metal |

**Total Potential to Emit[6]**

| | | | | |
|---|---|---|---|---|
| **PTE for Booth:** | **14.62** | **350.89** | **64.04** | **47.22** |
| Particulate control efficiency | 95% | **PM/PM10/PM2.5 PTE after issuance** | | **2.36** |

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Parts Booth**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**2. Hazardous Air Pollutants**

**HAP Content Data**

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds[7] | Weight % Cumene | Weight % Ethylbenzene | Weight % Glycol Ethers | Weight % HMDI[7,8] | Weight % Manganese Compounds | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Topcoat and Topcoat Additives | | | | | | | | | | | | | | |
| R-Cure 800 Wabash Dup3058 Premium Shadow Red | KPR0645 | 8.57 | 1.79 | 1.67 | 0% | 0.20% | 0.07% | 0% | 0% | 0% | 0% | 0% | 0% | 0.34% |
| urethane part B[10] | 53-X145B | 8.84 | 0.51 | 1.67 | 0% | 0.20% | 0.08% | 0% | 0.16% | 0% | 0.01% | 0% | 0% | 0.31% |
| R-Cure 800 Dun1015 Red[9] | KPR0696 | 8.63 | 1.79 | 1.67 | 0% | 0.02% | 0.03% | 0% | 0% | 0% | 0% | 0% | 0% | 0.11% |
| urethane part B[10] | 53-X145B | 8.84 | 0.51 | 1.67 | 0% | 0.20% | 0.08% | 0% | 0.16% | 0% | 0.01% | 0% | 0% | 0.31% |
| Duraspar 420 Wabash White DTM[11] | AAW0448 | 13.81 | 2.30 | 1.67 | 0.06% | 0.002% | 0.01% | 1.61% | 0% | 0% | 0% | 0% | 0% | 0.04% |
| Duraspar 420 Wabash Gray 2.8 VOC DTM[12] | AAAW930 | 13.52 | 2.30 | 1.67 | 0.06% | 0.05% | 0.01% | 1.60% | 0% | 0% | 0% | 0.31% | 0.01% | 0.12% |
| Duraspar 430 Crete Red[13] | AARW623 | 9.52 | 2.30 | 1.67 | 0.06% | 0% | 0% | 4.05% | 0% | 0.10% | 0% | 0% | 0.03% | 0% |
| Duraspar 430 Cloud Silver Metallic[14] | AAMW338 | 9.65 | 2.30 | 1.67 | 0.08% | 0.03% | 0% | 5.00% | 0% | 0.12% | 0% | 0.20% | 0.04% | 0.06% |
| Duraspar 430 Black Low Gloss[13] | AAAW828 | 9.79 | 2.30 | 1.67 | 0.07% | 0% | 0% | 4.40% | 0% | 0.10% | 0% | 0% | 0.04% | 0.0002% |
| Duraspar 430 Werner Dark Blue Metallic[15] | AAMW423 | 9.83 | 2.30 | 1.67 | 0.07% | 0.01% | 0% | 4.34% | 0% | 0.10% | 0% | 0% | 0.04% | 0.01% |
| Duraspar 430 Green DU1317, AAGK360[13] | AAGK360 | 9.65 | 2.30 | 1.67 | 0.07% | 0% | 0.07% | 4.31% | 0% | 0.10% | 0% | 0% | 0.04% | 0.35% |
| Duraspar 430 Wabash Black 3.5 VOC DTM | AAAW927 | 12.15 | 2.30 | 1.67 | 0.02% | 0.03% | 0.12% | 0.84% | 0% | 0.04% | 0% | 0% | 0.03% | 0% |
| Black Fast Dry HS DTM[16] | AAA0631 | 12.40 | 2.30 | 1.67 | 0.06% | 0.07% | 0.01% | 0% | 0% | 0% | 1.16% | 0% | 0.001% | 0.14% |
| Z Shield 2222 White Enamel[17] | 0217WW10 | 8.89 | 2.30 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0% | 0.01% | 0% | 2.73% | 0.79% |

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds[7] | Weight % Cumene | Weight % Ethylbenzene | Weight % Glycol Ethers | Weight % HMDI[7,8] | Weight % Manganese Compounds | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primers | | | | | | | | | | | | | | |
| High Solids Air Dry Primer, Gray[10] | E61AC134 | 11.35 | 2.30 | 1.67 | 0% | 0.02% | 0.30% | 0% | 0% | 0% | 0% | 0% | 0% | 2.02% |

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds[7] | Weight % Cumene | Weight % Ethylbenzene | Weight % Glycol Ethers | Weight % HMDI[7,8] | Weight % Manganese Compounds | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Undercoating | | | | | | | | | | | | | | |
| Z Guard 10,000 Black Undercoating[18] | 0353W-XL3 | 11.57 | 2.30 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.13% |
| ZPG-1017F Low V.O.C.[18] | 0352LVOC | 12.10 | 2.30 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.12% |
| Z-C Plate[19] | 0217WCP4 | 9.97 | 2.30 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.69% | 0.81% |
| Z Guard 9000[20] | 0353M | 11.00 | 2.30 | 1.67 | 0% | 0% | 0.03% | 0% | 0% | 0% | 0% | 0% | 0.03% | 0.17% |

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds[7] | Weight % Cumene | Weight % Ethylbenzene | Weight % Glycol Ethers | Weight % HMDI[7,8] | Weight % Manganese Compounds | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sealants & Other Coatings | | | | | | | | | | | | | | |
| BC 1218-61 Gray[21] | BC 1218-61 Gray | 9.17 | 2.30 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.20% |
| ZPG-9011 Green Sealant[22] | ZPG-9011 | 9.06 | 2.30 | 1.67 | 0% | 0% | 0.03% | 0% | 0% | 0% | 0% | 0% | 0.57% | 0.74% |
| ZPG-9035 Orange[23] | ZPG-9035 Orange | 7.26 | 2.30 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.48% |
| Aerosol cold galvanizing compound | 10000 | 10.01 | 0.20 | 1.67 | 0% | 0.00% | 0.00% | 0% | 0% | 0% | 0% | 0% | 0% | 0.10% |

**HAP Potential to Emit**

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Topcoat and Topcoat Additives | | | | | | | | | | | | | |
| R-Cure 800 Wabash Dup3058 Premium Shadow Red | KPR0645 | | 0 | 0.23 | 7.85E-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0.38 | 0.69 |
| urethane part B | 53-X145B | | 0 | 6.67E-02 | 2.64E-02 | 0 | 1.32E-02 | 0 | 3.30E-03 | 0 | 0 | 0.10 | 0.21 |
| | | *Total of this two-part coating* | *0* | *0.29* | *0.10* | *0* | *1.32E-02* | *0* | *3.30E-03* | *0* | *0* | *0.49* | *0.90* |
| R-Cure 800 Dun1015 Red | KPR0696 | | 0 | 1.81E-02 | 3.39E-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0.12 | 0.18 |
| urethane part B | 53-X145B | | 0 | 6.67E-02 | 2.64E-02 | 0 | 1.32E-02 | 0 | 3.30E-03 | 0 | 0 | 0.10 | 0.21 |
| | | *Total of this two-part coating* | *0* | *8.48E-02* | *6.03E-02* | *0* | *1.32E-02* | *0* | *3.30E-03* | *0* | *0* | *0.23* | *0.39* |
| Duraspar 420 Wabash White DTM | AAW0448 | | 3.49E-02 | 4.18E-03 | 2.32E-02 | 3.74 | 0 | 0 | 0 | 0 | 0 | 9.87E-02 | 3.90 |
| Duraspar 420 Wabash Gray 2.8 VOC DTM | AAAW930 | | 3.41E-02 | 0.11 | 2.27E-02 | 3.64 | 0 | 0 | 0 | 0.18 | 2.28E-02 | 0.27 | 4.28 |
| Duraspar 430 Crete Red | AARW623 | | 2.40E-02 | 0 | 0 | 6.49 | 0 | 4.00E-02 | 0 | 0 | 4.81E-02 | 0 | 6.60 |
| Duraspar 430 Cloud Silver Metallic | AAMW338 | | 3.25E-02 | 4.25E-02 | 0 | 8.12 | 0 | 4.87E-02 | 0 | 8.10E-02 | 6.54E-02 | 9.17E-02 | 8.48 |
| Duraspar 430 Black Low Gloss | AAAW828 | | 2.88E-02 | 0 | 0 | 7.25 | 0 | 4.12E-02 | 0 | 0 | 6.60E-02 | 3.29E-04 | 7.38 |
| Duraspar 430 Werner Dark Blue Metallic | AAMW423 | | 2.89E-02 | 1.97E-02 | 0 | 7.18 | 0 | 4.13E-02 | 0 | 0 | 6.62E-02 | 8.93E-03 | 7.34 |
| Duraspar 430 Green DU1317 | AAGK360 | | 2.84E-02 | 0 | 0.11 | 7.00 | 0 | 4.06E-02 | 0 | 0 | 6.50E-02 | 0.57 | 7.81 |
| Duraspar 430 Wabash Black 3.5 VOC DTM | AAAW927 | | 1.02E-02 | 6.89E-02 | 0.25 | 1.72 | 0 | 2.04E-02 | 0 | 0 | 6.16E-02 | 0.00 | 2.12 |
| Black Fast Dry HS DTM | AAA0631 | | 3.13E-02 | 0.14 | 2.09E-02 | 0 | 0 | 0 | 2.43 | 0 | 1.46E-03 | 0.28 | 2.90 |
| Z Shield 2222 White Enamel | 0217WW10 | | 0 | 0 | 0 | 0 | 0 | 0 | 1.08E-02 | 0 | 4.08 | 1.19 | 5.27 |
| | | ***Worst Case Topcoat and Topcoat Additives*** | ***3.49E-02*** | ***0.29*** | ***0.25*** | ***8.12*** | ***1.32E-02*** | ***4.87E-02*** | ***2.43*** | ***0.18*** | ***4.08*** | ***1.19*** | ***8.48*** |

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Parts Booth**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primers | | | | | | | | | | | | | |
| High Solids Air Dry Primer, Gray | E61AC134 | | 0 | 3.82E-02 | 0.57 | 0 | 0 | 0 | 0 | 0 | 0 | 3.86 | 4.47 |

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Undercoating | | | | | | | | | | | | | |
| Z Guard 10,000 Black Undercoating | 0353W-XL3 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ZPG-1017F Low V.O.C. | 0352LVOC | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Z-C Plate | 0217WCP4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.16 | 1.16 |
| Z Guard 9000 | 0353M | | 0 | 0 | 5.55E-02 | 0 | 0 | 0 | 0 | 0 | 0 | 5.55E-02 | 0.11 |
| | | ***Worst Case Undercoating*** | ***0*** | ***0*** | ***5.55E-02*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***1.16*** | ***1.16*** |

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sealants & Other Coatings | | | | | | | | | | | | | |
| BC-1218-61 Gray | BC-1218-61 Gray | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.31 | 0.31 |
| ZPG-9011 Green Sealant | ZPG-9011 | | 0 | 0 | 0.04572649 | 0 | 0 | 0 | 0 | 0 | 8.69E-01 | 1.13 | 2.04 |
| ZPG-9035 Orange | ZPG-9035 Orange | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.59 | 0.59 |
| | | ***Worst Case Sealants & Other Coatings*** | ***0*** | ***0*** | ***0.04572649*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***8.69E-01*** | ***1.13*** | ***2.04*** |
| | | **Worst-case Totals for Airless Applied Spray Gun Applied (booth equipped with 1 gun):** | **3.49E-02** | **0.29** | **0.57** | **8.12** | **1.32E-02** | **4.87E-02** | **2.43** | **0.18** | **4.08** | **3.86** | **8.48** |

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aerosol cold galvanizing compound | 10000 | | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1.46E-02** | **1.46E-02** |

| | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total of all booths**[6] | **3.49E-02** | **0.29** | **0.57** | **8.12** | **1.32E-02** | **4.87E-02** | **2.43** | **0.18** | **4.08** | **3.87** | **8.49** |

*Notes*

1. *Where not provided in SDS or TDS, volume % solids calculated as 100 - Weight % Volatile (H2O & Organics)*
2. *Manual application methods include dip, roll, flow (including tube and caulking gun-type applications), brush, and wipe coatings*
3. *Exempt solvent acetone*
4. *Indented product is a reducer or additive used with the coating above*
5. *Exempt solvent t-butyl acetate*
6. *Worst case coating shown in **BOLD** type included in total with the aerosol cold galvanizing touchup coating use on all units.*
7. *Worst-case emissions estimated as (1-transfer efficiency) because the HAP is a nonvolatile component*
8. *HMDI - hexamethylene diisocyanate*
9. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6) and mineral spirits (CASRN 64742-88-7) from Table 3, 40 CFR 63, Subpart MMMM.*
10. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6) from Table 3, 40 CFR 63, Subpart MMMM.*
11. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), low aromatic white spirit (CASRN 64742-82-1), Stoddard Solvent (CASRN 8052-41-3), and hydrotreated naphtha (CASRN 64742-48-9) from Table 3, 40 CFR 63, Subpart MMMM.*
12. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), low aromatic white spirit (CASRN 64742-82-1), hydrotreated light distillate (CASRN 64742-47-8), and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
13. *Includes default HAP content of hydrotreated light distillate (CASRN 64742-47-8), Stoddard Solvent (CASRN 8052-41-3), and hydrotreated naphtha (CASRN 34742-48-9) from Table 3, 40 CFR 63, Subpart MMMM.*
14. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), hydrotreated light distillate (CASRN 64742-47-8), and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
15. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), hydrotreated light distillate (CASRN 64742-47-8), hydrotreated naphtha (CASRN 64742-48-9), and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
16. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), aromatic solvent (CASRN 64742-94-5), low aromatic white spirit (CASRN 64742-82-1), mineral spirits (CASRN 64742-47-8), and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
17. *Includes default HAP content of VM & P naphtha (CASRN 64742-89-8), Stoddard Solvent (CASRN 8052-41-3), and aromatic 150 from Table 3, 40 CFR 63, Subpart MMMM. Worst case HAP content for VM & P naphtha chosen by name rather than CASRN.*
18. *Includes default HAP content of Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
19. *Includes default HAP content of VM & P naphtha (CASRN 64742-89-8) and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM. Worst case HAP content for VM & P naphtha chosen by name rather than CASRN.*
20. *Includes default HAP content of Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM and default HAP content of aliphatic solvent groups from Table 4, 40 CFR 63, Subpart MMMM.*
21. *Includes default HAP content of mineral spirits (CASRN 64742-88-7) from Table 3, 40 CFR 63, Subpart MMMM.*
22. *Includes default HAP content of Stoddard Solvent (CASRN 8052-41-3) and hydrotreated light distillate (CASRN 64742-47-8) from Table 3, 40 CFR 63, Subpart MMMM. Worst case HAP content for VM & P naphtha chosen by name rather than CASRN.*
23. *Includes default HAP content of mineral spirits (CASRN 64742-88-7) and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*

**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
HAP PTE (tons/yr) = Density (lb/gal) x Gal of Mat. (gal/unit) x Maximum Usage (unit/hr) x (Weight % HAP/100) x 8,760 (hr/yr) / 2,000 (lb/ton) *volatiles*
HAP PTE (tons/yr) = Density (lb/gal) x Gal of Mat. (gal/unit) x Maximum Usage (unit/hr) x (Weight % HAP/100) x 8,760 (hr/yr) / 2,000 (lb/ton) x (1 - Transfer Efficiency (%)/100) *nonvolatiles - cobalt, HMDI, manganese, and phosphorus*

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Finish Booth**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**1. VOC and PM**

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Topcoat and Topcoat Additives | | | | | | | | | | | | | | | | | | | | | |
| R-Cure 800 Wabash Dup3058 Premium Shadow Red[3] | KPR0645 | 8.57 | 42.04% | 7.61% | 0% | 34.43% | 9.87% | 0% | 50.18% | 1.79 | 1.67 | 71.70 | 2.95 | 2.95 | 8.81 | 211.56 | 38.61 | 16.25 | airless | 75% | metal |
| urethane part B[4,5] | 53-X145B | 8.84 | 28.54% | 0% | 0% | 28.54% | 0% | 0% | 65.81% | 0.51 | 1.67 | 20.49 | 2.52 | 2.52 | 2.15 | 51.68 | 9.43 | 5.90 | airless | 75% | metal |
| | | | | | | | | | | | *Total of this two-part coating* | *92.18* | *2.86* | *2.86* | *10.97* | *263.24* | *48.04* | *22.15* | | | |
| R-Cure 800 Dun1015 Red, [3,5] | KPR0696 | 8.63 | 42.37% | 10.18% | 0% | 32.19% | 13.30% | 0% | 48.92% | 1.79 | 1.67 | 71.70 | 2.78 | 2.78 | 8.30 | 199.18 | 36.35 | 16.27 | airless | 75% | metal |
| urethane part B[5] | 53-X145B | 8.84 | 28.54% | 0% | 0% | 28.54% | 0% | 0% | 65.81% | 0.51 | 1.67 | 20.49 | 2.52 | 2.52 | 2.15 | 51.68 | 9.43 | 5.90 | airless | 75% | metal |
| | | | | | | | | | | | *Total of this two-part coating* | *92.18* | *2.72* | *2.72* | *10.45* | *250.86* | *45.78* | *22.17* | | | |
| Duraspar 420 Wabash White DTM[3] | AAW0448 | 13.81 | 21.48% | 2.46% | 0% | 19.02% | 5.14% | 0% | 57.86% | 2.30 | 1.67 | 92.18 | 2.63 | 2.63 | 10.09 | 242.14 | 44.19 | **45.61** | airless | 75% | metal |
| Duraspar 420 Wabash Gray 2.8 VOC DTM[3] | AAAW930 | 13.52 | 22.23% | 2.74% | 0% | 19.49% | 5.61% | 0% | 57.54% | 2.30 | 1.67 | 92.18 | 2.64 | 2.64 | 10.12 | 242.91 | 44.33 | 44.22 | airless | 75% | metal |
| Duraspar 430 Crete Red | AARW623 | 9.52 | 36.38% | 0% | 0% | 36.38% | 0% | 0% | 51.80% | 2.30 | 1.67 | 92.18 | 3.46 | 3.46 | 13.30 | 319.27 | 58.27 | 25.47 | airless | 75% | metal |
| Duraspar 430 Cloud Silver Metallic | AAMW338 | 9.65 | 35.15% | 0% | 0% | 35.15% | 0% | 0% | 52.51% | 2.30 | 1.67 | 92.18 | 3.39 | 3.39 | 13.03 | 312.69 | 57.07 | 26.32 | airless | 75% | metal |
| Duraspar 430 Black Low Gloss | AAAW828 | 9.79 | 35.43% | 0% | 0% | 35.43% | 0% | 0% | 51.78% | 2.30 | 1.67 | 92.18 | 3.47 | 3.47 | 13.32 | 319.75 | 58.35 | 26.59 | airless | 75% | metal |
| Duraspar 430 Werner Dark Blue Metallic | AAMW423 | 9.83 | 33.73% | 0% | 0% | 33.73% | 0% | 0% | 53.81% | 2.30 | 1.67 | 92.18 | 3.32 | 3.32 | 12.74 | 305.65 | 55.78 | 27.40 | airless | 75% | metal |
| Duraspar 430 Green DU1317 | AAGK360 | 9.65 | 34.57% | 0% | 0% | 34.57% | 0% | 0% | 53.59% | 2.30 | 1.67 | 92.18 | 3.34 | 3.34 | 12.81 | 307.53 | 56.12 | 26.56 | airless | 75% | metal |
| Duraspar 430 Wabash Black 3.5 VOC DTM | AAAW927 | 12.15 | 28.71% | 0% | 0% | 28.71% | 0% | 0% | 52.00% | 2.30 | 1.67 | 92.18 | 3.49 | 3.49 | 13.40 | 321.56 | 58.69 | 36.43 | airless | 75% | metal |
| Black Fast Dry HS DTM | AAA0631 | 12.40 | 28.17% | 0% | 0% | 28.17% | 0% | 0% | 51.05% | 2.30 | 1.67 | 92.18 | 3.49 | 3.49 | 13.42 | 322.01 | 58.77 | 37.46 | airless | 75% | metal |
| Z Shield 2222 White Enamel[3] | 0217WW14-LVOC | 8.89 | 41.30% | 7.01% | 0% | 34.29% | 9.43% | 0% | 41.30% | 2.30 | 1.67 | 92.18 | 3.05 | 3.05 | 11.71 | 281.01 | 51.28 | 21.95 | airless | 75% | metal |
| | | | | | | | | | | | ***Worst Case Topcoat and Topcoat Additives*** | | ***3.49*** | | ***13.42*** | ***322.01*** | ***58.77*** | ***45.61*** | | | |

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primers | | | | | | | | | | | | | | | | | | | | | |
| High Solids Air Dry Primer, Gray | E61AC134 | 11.35 | 29.34% | 0% | 0% | 29.34% | 0% | 0% | 52.00% | 2.30 | 1.67 | 92.18 | 3.33 | 3.33 | 12.79 | 306.98 | 56.02 | 33.73 | airless | 75% | metal |

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Undercoating | | | | | | | | | | | | | | | | | | | | | |
| Z Guard 10,000 Black Undercoating[3] | 0353W-XL3 | 11.57 | 17.64% | 4.10% | 0% | 13.54% | 7.02% | 0% | 69.25% | 2.30 | 1.67 | 92.18 | 1.57 | 1.57 | 6.02 | 144.41 | 26.36 | 40.08 | airless | 75% | metal |
| ZPG-1017F Low V.O.C.[3] | 0352LVOC | 12.10 | 13.55% | 0.53% | 0% | 13.02% | 0.97% | 0% | 78.94% | 2.30 | 1.67 | 92.18 | 1.58 | 1.58 | 6.05 | 145.23 | 26.50 | 44.00 | airless | 75% | metal |
| Z-C Plate[3] | 0217WCP4 | 9.97 | 55.00% | 20.00% | 0% | 35.00% | 30.80% | 0% | 15.20% | 2.30 | 1.67 | 92.18 | 3.49 | 3.49 | 13.40 | 321.68 | 58.71 | 18.87 | airless | 75% | metal |
| Z Guard 9000[3] | 0353M | 11.00 | 24.00% | 7.00% | 0% | 17.00% | 12.00% | 0% | 60.10% | 2.30 | 1.67 | 92.18 | 1.87 | 1.87 | 7.18 | 172.38 | 31.46 | 35.16 | airless | 75% | metal |
| | | | | | | | | | | | ***Worst Case Undercoating*** | | ***3.49*** | | ***13.40*** | ***321.68*** | ***58.71*** | ***44.00*** | | | |

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sealants & Other Coatings | | | | | | | | | | | | | | | | | | | | | |
| BC 1218-61 Gray | BC 1218-61 Gray | 9.17 | 20.00% | 0% | 0% | 20.00% | 0% | 0% | 68.00% | 2.30 | 1.67 | 92.18 | 1.83 | 1.83 | 7.05 | 169.14 | 30.87 | 30.87 | airless | 75% | metal |
| ZPG-9011 Green Sealant | ZPG-9011 | 9.06 | 38.00% | 0% | 0% | 38.00% | 0% | 0% | 46.20% | 2.30 | 1.67 | 92.18 | 3.44 | 3.44 | 13.22 | 317.37 | 57.92 | 23.63 | airless | 75% | metal |
| ZPG-9035 Orange[5] | ZPG-9035 Orange | 7.26 | 60.90% | 12.90% | 0% | 48.00% | 13.41% | 0% | 36.59% | 2.30 | 1.67 | 92.18 | 3.48 | 3.48 | 13.39 | 321.24 | 58.63 | 11.94 | airless | 75% | metal |
| | | | | | | | | | | | ***Worst Case Sealants & Other Coatings*** | | ***3.48*** | | ***13.39*** | ***321.24*** | ***58.63*** | ***30.87*** | | |
| | | | | | | | | | | | **Worst-case Totals for Airless Applied Spray Gun Applied (booth equipped with 1 gun):** | | | | **13.42** | **322.01** | **58.77** | **45.61** | | |

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aerosol cold galvanizing compound | 10000 | 10.01 | 56.00% | 20% | 0% | 36.00% | 30.31% | 0% | 56.00% | 0.20 | 1.67 | 8.02 | 3.60 | 3.60 | **1.20** | **28.89** | **5.27** | **1.61** | airless | 75% | metal |

**Total Potential to Emit[6]**

| | | | | |
|---|---|---|---|---|
| **PTE for Booth:** | **14.62** | **350.89** | **64.04** | **47.22** |
| Particulate control efficiency 95% | **PM/PM10/PM2.5 PTE after issuance** | | | **2.36** |

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Finish Booth**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**2. Hazardous Air Pollutants**

**HAP Content Data**

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds[7] | Weight % Cumene | Weight % Ethylbenzene | Weight % Glycol Ethers | Weight % HMDI[7,8] | Weight % Manganese Compounds | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Topcoat and Topcoat Additives | | | | | | | | | | | | | | |
| R-Cure 800 Wabash Dup3058 Premium Shadow Red | KPR0645 | 8.57 | 1.79 | 1.67 | 0% | 0.20% | 0.07% | 0% | 0% | 0% | 0% | 0% | 0% | 0.34% |
| urethane part B[10] | 53-X145B | 8.84 | 0.51 | 1.67 | 0% | 0.20% | 0.08% | 0% | 0.16% | 0% | 0.01% | 0% | 0% | 0.31% |
| R-Cure 800 Dun1015 Red[9] | KPR0696 | 8.63 | 1.79 | 1.67 | 0% | 0.02% | 0.03% | 0% | 0% | 0% | 0% | 0% | 0% | 0.11% |
| urethane part B[10] | 53-X145B | 8.84 | 0.51 | 1.67 | 0% | 0.20% | 0.08% | 0% | 0.16% | 0% | 0.01% | 0% | 0% | 0.31% |
| Duraspar 420 Wabash White DTM[11] | AAW0448 | 13.81 | 2.30 | 1.67 | 0.06% | 0.002% | 0.01% | 1.61% | 0% | 0% | 0% | 0% | 0% | 0.04% |
| Duraspar 420 Wabash Gray 2.8 VOC DTM[12] | AAAW930 | 13.52 | 2.30 | 1.67 | 0.06% | 0.05% | 0.01% | 1.60% | 0% | 0% | 0% | 0.31% | 0.01% | 0.12% |
| Duraspar 430 Crete Red[13] | AARW623 | 9.52 | 2.30 | 1.67 | 0.06% | 0% | 0% | 4.05% | 0% | 0.10% | 0% | 0% | 0.03% | 0% |
| Duraspar 430 Cloud Silver Metallic[14] | AAMW338 | 9.65 | 2.30 | 1.67 | 0.08% | 0.03% | 0% | 5.00% | 0% | 0.12% | 0% | 0.20% | 0.04% | 0.06% |
| Duraspar 430 Black Low Gloss[13] | AAAW828 | 9.79 | 2.30 | 1.67 | 0.07% | 0% | 0% | 4.40% | 0% | 0.10% | 0% | 0% | 0.04% | 0.0002% |
| Duraspar 430 Werner Dark Blue Metallic[15] | AAMW423 | 9.83 | 2.30 | 1.67 | 0.07% | 0.01% | 0% | 4.34% | 0% | 0.10% | 0% | 0% | 0.04% | 0.01% |
| Duraspar 430 Green DU1317, AAGK360[13] | AAGK360 | 9.65 | 2.30 | 1.67 | 0.07% | 0% | 0.07% | 4.31% | 0% | 0.10% | 0% | 0% | 0.04% | 0.35% |
| Duraspar 430 Wabash Black 3.5 VOC DTM | AAAW927 | 12.15 | 2.30 | 1.67 | 0.02% | 0.03% | 0.12% | 0.84% | 0% | 0.04% | 0% | 0% | 0.03% | 0% |
| Black Fast Dry HS DTM[16] | AAA0631 | 12.40 | 2.30 | 1.67 | 0.06% | 0.07% | 0.01% | 0% | 0% | 0% | 1.16% | 0% | 0.001% | 0.14% |
| Z Shield 2222 White Enamel[17] | 0217WW10 | 8.89 | 2.30 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0% | 0.01% | 0% | 2.73% | 0.79% |

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds[7] | Weight % Cumene | Weight % Ethylbenzene | Weight % Glycol Ethers | Weight % HMDI[7,8] | Weight % Manganese Compounds | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primers | | | | | | | | | | | | | | |
| High Solids Air Dry Primer, Gray[10] | E61AC134 | 11.35 | 2.30 | 1.67 | 0% | 0.02% | 0.30% | 0% | 0% | 0% | 0% | 0% | 0% | 2.02% |

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds[7] | Weight % Cumene | Weight % Ethylbenzene | Weight % Glycol Ethers | Weight % HMDI[7,8] | Weight % Manganese Compounds | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Undercoating | | | | | | | | | | | | | | |
| Z Guard 10,000 Black Undercoating[18] | 0353W-XL3 | 11.57 | 2.30 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.13% |
| ZPG-1017F Low V.O.C.[18] | 0352LVOC | 12.10 | 2.30 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.12% |
| Z-C Plate[19] | 0217WCP4 | 9.97 | 2.30 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.69% | 0.81% |
| Z Guard 9000[20] | 0353M | 11.00 | 2.30 | 1.67 | 0% | 0% | 0.03% | 0% | 0% | 0% | 0% | 0% | 0.03% | 0.17% |

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds[7] | Weight % Cumene | Weight % Ethylbenzene | Weight % Glycol Ethers | Weight % HMDI[7,8] | Weight % Manganese Compounds | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sealants & Other Coatings | | | | | | | | | | | | | | |
| BC 1218-61 Gray[21] | BC 1218-61 Gray | 9.17 | 2.30 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.20% |
| ZPG-9011 Green Sealant[22] | ZPG-9011 | 9.06 | 2.30 | 1.67 | 0% | 0% | 0.03% | 0% | 0% | 0% | 0% | 0% | 0.57% | 0.74% |
| ZPG-9035 Orange[23] | ZPG-9035 Orange | 7.26 | 2.30 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.48% |
| Aerosol cold galvanizing compound | 10000 | 10.01 | 0.20 | 1.67 | 0% | 0.00% | 0.00% | 0% | 0% | 0% | 0% | 0% | 0% | 0.10% |

**HAP Potential to Emit**

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Topcoat and Topcoat Additives | | | | | | | | | | | | | |
| R-Cure 800 Wabash Dup3058 Premium Shadow Red | KPR0645 | | 0 | 0.23 | 7.85E-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0.38 | 0.69 |
| urethane part B | 53-X145B | | 0 | 6.67E-02 | 2.64E-02 | 0 | 1.32E-02 | 0 | 3.30E-03 | 0 | 0 | 0.10 | 0.21 |
| | | *Total of this two-part coating* | *0* | *0.29* | *0.10* | *0* | *1.32E-02* | *0* | *3.30E-03* | *0* | *0* | *0.49* | *0.90* |
| R-Cure 800 Dun1015 Red | KPR0696 | | 0 | 1.81E-02 | 3.39E-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0.12 | 0.18 |
| urethane part B | 53-X145B | | 0 | 6.67E-02 | 2.64E-02 | 0 | 1.32E-02 | 0 | 3.30E-03 | 0 | 0 | 0.10 | 0.21 |
| | | *Total of this two-part coating* | *0* | *8.48E-02* | *6.03E-02* | *0* | *1.32E-02* | *0* | *3.30E-03* | *0* | *0* | *0.23* | *0.39* |
| Duraspar 420 Wabash White DTM | AAW0448 | | 3.49E-02 | 4.18E-03 | 2.32E-02 | 3.74 | 0 | 0 | 0 | 0 | 0 | 9.87E-02 | 3.90 |
| Duraspar 420 Wabash Gray 2.8 VOC DTM | AAAW930 | | 3.41E-02 | 0.11 | 2.27E-02 | 3.64 | 0 | 0 | 0 | 0.18 | 2.28E-02 | 0.27 | 4.28 |
| Duraspar 430 Crete Red | AARW623 | | 2.40E-02 | 0 | 0 | 6.49 | 0 | 4.00E-02 | 0 | 0 | 4.81E-02 | 0 | 6.60 |
| Duraspar 430 Cloud Silver Metallic | AAMW338 | | 3.25E-02 | 4.25E-02 | 0 | 8.12 | 0 | 4.87E-02 | 0 | 8.10E-02 | 6.54E-02 | 9.17E-02 | 8.48 |
| Duraspar 430 Black Low Gloss | AAAW828 | | 2.88E-02 | 0 | 0 | 7.25 | 0 | 4.12E-02 | 0 | 0 | 6.60E-02 | 3.29E-04 | 7.38 |
| Duraspar 430 Werner Dark Blue Metallic | AAMW423 | | 2.89E-02 | 1.97E-02 | 0 | 7.18 | 0 | 4.13E-02 | 0 | 0 | 6.62E-02 | 8.93E-03 | 7.34 |
| Duraspar 430 Green DU1317 | AAGK360 | | 2.84E-02 | 0 | 0.11 | 7.00 | 0 | 4.06E-02 | 0 | 0 | 6.50E-02 | 0.57 | 7.81 |
| Duraspar 430 Wabash Black 3.5 VOC DTM | AAAW927 | | 1.02E-02 | 6.89E-02 | 0.25 | 1.72 | 0 | 2.04E-02 | 0 | 0 | 6.16E-02 | 0.00 | 2.12 |
| Black Fast Dry HS DTM | AAA0631 | | 3.13E-02 | 0.14 | 2.09E-02 | 0 | 0 | 0 | 2.43 | 0 | 1.46E-03 | 0.28 | 2.90 |
| Z Shield 2222 White Enamel | 0217WW10 | | 0 | 0 | 0 | 0 | 0 | 0 | 1.08E-02 | 0 | 4.08 | 1.19 | 5.27 |
| | | ***Worst Case Topcoat and Topcoat Additives*** | ***3.49E-02*** | ***0.29*** | ***0.25*** | ***8.12*** | ***1.32E-02*** | ***4.87E-02*** | ***2.43*** | ***0.18*** | ***4.08*** | ***1.19*** | ***8.48*** |

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Finish Booth**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primers | | | | | | | | | | | | | |
| High Solids Air Dry Primer, Gray | E61AC134 | | 0 | 3.82E-02 | 0.57 | 0 | 0 | 0 | 0 | 0 | 0 | 3.86 | 4.47 |

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Undercoating | | | | | | | | | | | | | |
| Z Guard 10,000 Black Undercoating | 0353W-XL3 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ZPG-1017F Low V.O.C. | 0352LVOC | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Z-C Plate | 0217WCP4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.16 | 1.16 |
| Z Guard 9000 | 0353M | | 0 | 0 | 5.55E-02 | 0 | 0 | 0 | 0 | 0 | 0 | 5.55E-02 | 0.11 |
| | | ***Worst Case Undercoating*** | ***0*** | ***0*** | ***5.55E-02*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***1.16*** | ***1.16*** |

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sealants & Other Coatings | | | | | | | | | | | | | |
| BC-1218-61 Gray | BC-1218-61 Gray | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.31 | 0.31 |
| ZPG-9011 Green Sealant | ZPG-9011 | | 0 | 0 | 0.04572649 | 0 | 0 | 0 | 0 | 0 | 8.69E-01 | 1.13 | 2.04 |
| ZPG-9035 Orange | ZPG-9035 Orange | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.59 | 0.59 |
| | | ***Worst Case Sealants & Other Coatings*** | ***0*** | ***0*** | ***0.04572649*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***8.69E-01*** | ***1.13*** | ***2.04*** |
| | | **Worst-case Totals for Airless Applied Spray Gun Applied (booth equipped with 1 gun):** | **3.49E-02** | **0.29** | **0.57** | **8.12** | **1.32E-02** | **4.87E-02** | **2.43** | **0.18** | **4.08** | **3.86** | **8.48** |

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aerosol cold galvanizing compound | 10000 | | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **0** | **1.46E-02** | **1.46E-02** |

| | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total of all booths**[6] | **3.49E-02** | **0.29** | **0.57** | **8.12** | **1.32E-02** | **4.87E-02** | **2.43** | **0.18** | **4.08** | **3.87** | **8.49** |

*Notes*

1. *Where not provided in SDS or TDS, volume % solids calculated as 100 - Weight % Volatile (H2O & Organics)*
2. *Manual application methods include dip, roll, flow (including tube and caulking gun-type applications), brush, and wipe coatings*
3. *Exempt solvent acetone*
4. *Indented product is a reducer or additive used with the coating above*
5. *Exempt solvent t-butyl acetate*
6. *Worst case coating shown in* ***BOLD*** *type included in total with the aerosol cold galvanizing touchup coating use on all units.*
7. *Worst-case emissions estimated as (1-transfer efficiency) because the HAP is a nonvolatile component*
8. *HMDI - hexamethylene diisocyanate*
9. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6) and mineral spirits (CASRN 64742-88-7) from Table 3, 40 CFR 63, Subpart MMMM.*
10. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6) from Table 3, 40 CFR 63, Subpart MMMM.*
11. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), low aromatic white spirit (CASRN 64742-82-1), Stoddard Solvent (CASRN 8052-41-3), and hydrotreated naphtha (CASRN 64742-48-9) from Table 3, 40 CFR 63, Subpart MMMM.*
12. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), low aromatic white spirit (CASRN 64742-82-1), hydrotreated light distillate (CASRN 64742-47-8), and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
13. *Includes default HAP content of hydrotreated light distillate (CASRN 64742-47-8), Stoddard Solvent (CASRN 8052-41-3), and hydrotreated naphtha (CASRN 34742-48-9) from Table 3, 40 CFR 63, Subpart MMMM.*
14. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), hydrotreated light distillate (CASRN 64742-47-8), and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
15. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), hydrotreated light distillate (CASRN 64742-47-8), hydrotreated naphtha (CASRN 64742-48-9), and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
16. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), aromatic solvent (CASRN 64742-94-5), low aromatic white spirit (CASRN 64742-82-1), mineral spirits (CASRN 64742-47-8), and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
17. *Includes default HAP content of VM & P naphtha (CASRN 64742-89-8), Stoddard Solvent (CASRN 8052-41-3), and aromatic 150 from Table 3, 40 CFR 63, Subpart MMMM. Worst case HAP content for VM & P naphtha chosen by name rather than CASRN.*
18. *Includes default HAP content of Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
19. *Includes default HAP content of VM & P naphtha (CASRN 64742-89-8) and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM. Worst case HAP content for VM & P naphtha chosen by name rather than CASRN.*
20. *Includes default HAP content of Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM and default HAP content of aliphatic solvent groups from Table 4, 40 CFR 63, Subpart MMMM.*
21. *Includes default HAP content of mineral spirits (CASRN 64742-88-7) from Table 3, 40 CFR 63, Subpart MMMM.*
22. *Includes default HAP content of Stoddard Solvent (CASRN 8052-41-3) and hydrotreated light distillate (CASRN 64742-47-8) from Table 3, 40 CFR 63, Subpart MMMM. Worst case HAP content for VM & P naphtha chosen by name rather than CASRN.*
23. *Includes default HAP content of mineral spirits (CASRN 64742-88-7) and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*

**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
HAP PTE (tons/yr) = Density (lb/gal) x Gal of Mat. (gal/unit) x Maximum Usage (unit/hr) x (Weight % HAP/100) x 8,760 (hr/yr) / 2,000 (lb/ton) *volatiles*
HAP PTE (tons/yr) = Density (lb/gal) x Gal of Mat. (gal/unit) x Maximum Usage (unit/hr) x (Weight % HAP/100) x 8,760 (hr/yr) / 2,000 (lb/ton) x (1 - Transfer Efficiency (%)/100) *nonvolatiles - cobalt, HMDI, manganese, and phosphorus*

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Refinish Offline Paint Booth**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**1. VOC and PM**

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Topcoat and Topcoat Additives | | | | | | | | | | | | | | | | | | | | |
| R-Cure 800 Wabash Dup3058 Premium Shadow Red[3] | KPR0645 | 8.57 | 42.04% | 7.61% | 0% | 34.43% | 9.87% | 0% | 50.18% | 1.56 | 1.5 | 56.00 | 2.95 | 6.88 | 165.24 | 30.16 | 12.69 | airless | 75% | metal |
| urethane part B[4] | 53-X145B | 8.84 | 28.54% | 0% | 0% | 28.54% | 0% | 0% | 65.81% | 0.44 | 1.5 | 16.00 | 2.52 | 1.68 | 40.37 | 7.37 | 4.61 | airless | 75% | metal |
| | | | | | | | | | | | *Total of this two-part coating* | *72.00* | *2.86* | *8.57* | *205.60* | *37.52* | *17.30* | | | |
| R-Cure 800 Dun1015 Red[3,5] | KPR0696 | 8.63 | 42.37% | 10.18% | 0% | 32.19% | 13.30% | 0% | 48.92% | 1.56 | 1.5 | 56.00 | 2.78 | 6.48 | 155.57 | 28.39 | 12.71 | airless | 75% | metal |
| urethane part B[4] | 53-X145B | 8.84 | 28.54% | 0% | 0% | 28.54% | 0% | 0% | 65.81% | 0.44 | 1.5 | 16.00 | 2.52 | 1.68 | 40.37 | 7.37 | 4.61 | airless | 75% | metal |
| | | | | | | | | | | | *Total of this two-part coating* | *72.00* | *2.72* | *8.16* | *195.93* | *35.76* | *17.32* | | | |
| R-Cure 800 High Gloss Black Urethane | KPA0602 | 10.39 | 36.39% | 0% | 0% | 36.39% | 0% | 0% | 49.21% | 1.56 | 1.5 | 56.00 | 3.78 | 8.82 | 211.73 | 38.64 | 16.89 | airless | 75% | metal |
| urethane part B[4] | 53-X145B | 8.84 | 28.54% | 0% | 0% | 28.54% | 0% | 0% | 65.81% | 0.44 | 1.5 | 16.00 | 2.52 | 1.68 | 40.37 | 7.37 | 4.61 | airless | 75% | metal |
| | | | | | | | | | | | *Total of this two-part coating* | *72.00* | *3.50* | *10.50* | *252.10* | *46.01* | *21.50* | | | |
| Duraspar 420 Wabash White DTM[3] | AAW0448 | 13.81 | 21.48% | 2.46% | 0% | 19.02% | 5.14% | 0% | 57.86% | 2.00 | 1.5 | 72.00 | 2.63 | 7.88 | 189.12 | 34.51 | **35.62** | airless | 75% | metal |
| Duraspar 420 Wabash Gray 2.8 VOC DTM[3] | AAAW930 | 13.52 | 22.23% | 2.74% | 0% | 19.49% | 5.61% | 0% | 57.54% | 2.00 | 1.5 | 72.00 | 2.64 | 7.91 | 189.72 | 34.62 | 34.54 | airless | 75% | metal |
| Duraspar 430 Crete Red | AARW623 | 9.52 | 36.38% | 0% | 0% | 36.38% | 0% | 0% | 51.80% | 2.00 | 1.5 | 72.00 | 3.46 | 10.39 | 249.36 | 45.51 | 19.90 | airless | 75% | metal |
| Duraspar 430 Cloud Silver Metallic | AAMW338 | 9.65 | 35.15% | 0% | 0% | 35.15% | 0% | 0% | 52.51% | 2.00 | 1.5 | 72.00 | 3.39 | 10.18 | 244.22 | 44.57 | 20.56 | airless | 75% | metal |
| Duraspar 430 Black Low Gloss | AAAW828 | 9.79 | 35.43% | 0% | 0% | 35.43% | 0% | 0% | 51.78% | 2.00 | 1.5 | 72.00 | 3.47 | 10.41 | 249.74 | 45.58 | 20.77 | airless | 75% | metal |
| Duraspar 430 Werner Dark Blue Metallic | AAMW423 | 9.83 | 33.73% | 0% | 0% | 33.73% | 0% | 0% | 53.81% | 2.00 | 1.5 | 72.00 | 3.32 | 9.95 | 238.73 | 43.57 | 21.40 | airless | 75% | metal |
| Duraspar 430 Green DU1317 | AAGK360 | 9.65 | 34.57% | 0% | 0% | 34.57% | 0% | 0% | 53.59% | 2.00 | 1.5 | 72.00 | 3.34 | 10.01 | 240.19 | 43.84 | 20.74 | airless | 75% | metal |
| Duraspar 430 Wabash Black 3.5 VOC DTM | AAAW927 | 12.15 | 28.71% | 0% | 0% | 28.71% | 0% | 0% | 52.00% | 2.00 | 1.5 | 72.00 | 3.49 | 10.46 | 251.16 | 45.84 | 28.45 | airless | 75% | metal |
| Black Fast Dry HS DTM | AAA0631 | 12.40 | 28.17% | 0% | 0% | 28.17% | 0% | 0% | 51.05% | 2.00 | 1.5 | 72.00 | 3.49 | 10.48 | 251.50 | 45.90 | 29.26 | airless | 75% | metal |
| Z Shield 2222 White Enamel[3] | 0217WW14-LVOC | 8.89 | 41.30% | 7.01% | 0% | 34.29% | 9.43% | 0% | 41.30% | 2.00 | 1.5 | 72.00 | 3.05 | 9.15 | 219.48 | 40.06 | 17.14 | airless | 75% | metal |
| | | | | | | | | | | | ***Worst Case Topcoat and Topcoat Additives*** | | ***3.50*** | ***10.50*** | ***252.10*** | ***46.01*** | ***35.62*** | | | |

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primers | | | | | | | | | | | | | | | | | | | | |
| High Solids Air Dry Primer, Gray | E61AC134 | 11.35 | 29.34% | 0% | 0% | 29.34% | 0% | 0% | 52.00% | 2.00 | 1.5 | 72.00 | 3.33 | 9.99 | 239.77 | 43.76 | 26.35 | airless | 75% | metal |
| R-Cure 200 Yellow Epoxy Primer | EEY0045 | 12.42 | 29.01% | 0% | 0% | 29.01% | 0% | 0% | 47.57% | 1.80 | 1.5 | 64.80 | 3.60 | 9.73 | 233.48 | 42.61 | 26.07 | airless | 75% | metal |
| epoxy component B[4] | CEC0056 | 8.06 | 43.33% | 0% | 0% | 43.33% | 0% | 0% | 54.98% | 0.20 | 1.5 | 7.20 | 3.49 | 1.05 | 25.15 | 4.59 | 1.50 | airless | 75% | metal |
| | | | | | | | | | | | *Total of this two-part coating* | *72.00* | *3.59* | *10.78* | *258.62* | *47.20* | *27.57* | | | |
| R-Cure 200 Primer Yellow AD/FD Epoxy[5] | EEY1003 | 12.64 | 28.26% | 2.77% | 0% | 25.49% | 4.88% | 0% | 50.18% | 1.80 | 1.5 | 64.80 | 3.22 | 8.70 | 208.78 | 38.10 | 26.81 | airless | 75% | metal |
| epoxy component B[4] | CEC0056 | 8.06 | 43.33% | 0% | 0% | 43.33% | 0% | 0% | 54.98% | 0.20 | 1.5 | 7.20 | 3.49 | 1.05 | 25.15 | 4.59 | 1.50 | airless | 75% | metal |
| | | | | | | | | | | | *Total of this two-part coating* | *72.00* | *3.25* | *9.75* | *233.93* | *42.69* | *28.31* | | | |
| | | | | | | | | | | | ***Worst Case Primer*** | | ***3.59*** | ***10.78*** | ***258.62*** | ***47.20*** | ***28.31*** | | | |

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Undercoating | | | | | | | | | | | | | | | | | | | | |
| Z Guard 10,000 Black Undercoating[3] | 0353W-XL3 | 11.57 | 17.64% | 4.10% | 0% | 13.54% | 7.02% | 0% | 69.25% | 2.00 | 1.5 | 72.00 | 1.57 | 4.70 | 112.79 | 20.58 | 31.30 | airless | 75% | metal |
| ZPG-1017F Low V.O.C.[3] | 0352LVOC | 12.10 | 13.55% | 0.53% | 0% | 13.02% | 0.97% | 0% | 78.94% | 2.00 | 1.5 | 72.00 | 1.58 | 4.73 | 113.43 | 20.70 | 34.36 | airless | 75% | metal |
| Z-C Plate[3] | 0217WCP4 | 9.97 | 55.00% | 20.00% | 0% | 35.00% | 30.80% | 0% | 15.20% | 2.00 | 1.5 | 72.00 | 3.49 | 10.47 | 251.24 | 45.85 | 14.74 | airless | 75% | metal |
| Z Guard 9000[3] | 0353M | 11.00 | 24.00% | 7.00% | 0% | 17.00% | 12.00% | 0% | 60.10% | 2.00 | 1.5 | 72.00 | 1.87 | 5.61 | 134.64 | 24.57 | 27.46 | airless | 75% | metal |
| | | | | | | | | | | | ***Worst Case Undercoating*** | | ***3.49*** | ***10.47*** | ***251.24*** | ***45.85*** | ***34.36*** | | | |
| Sealants & Other Coatings | | | | | | | | | | | | | | | | | | | | |
| BC 1218-61 Gray | BC 1218-61 Gray | 9.17 | 20.00% | 0% | 0% | 20.00% | 0% | 0% | 68.00% | 2.00 | 1.5 | 72.00 | 1.83 | 5.50 | 132.11 | 24.11 | 24.11 | airless | 75% | metal |
| ZPG-9011 Green Sealant | ZPG-9011 | 9.06 | 38.00% | 0% | 0% | 38.00% | 0% | 0% | 46.20% | 2.00 | 1.5 | 72.00 | 3.44 | 10.33 | 247.88 | 45.24 | 18.45 | airless | 75% | metal |
| ZPG-9035 Orange[5] | ZPG-9035 Orange | 7.26 | 60.90% | 12.90% | 0% | 48.00% | 13.41% | 0% | 36.59% | 2.00 | 1.5 | 72.00 | 3.48 | 10.45 | 250.91 | 45.79 | 9.32 | airless | 75% | metal |
| | | | | | | | | | | | ***Worst Case Sealant & Other Coating*** | | ***3.48*** | ***10.45*** | ***250.91*** | ***45.79*** | ***24.11*** | | | |

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Refinish Offline Paint Booth**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coatings Prepared with Variable Reducer Ratios to Accommodate Seasonal and Operating Variation | | | | | | | | | | | | | | | | | | | | |
| *Coating to reducer ratio 1:0.25* | | | | | | | | | | | | | | | | | | | | |
| Fast Dry 35 White Base[6] | 95-0912 | 11.68 | 35.05% | 15.46% | 0.54% | 19.05% | 16.11% | 0.76% | 50.97% | 1.60 | 1.5 | 57.60 | 2.23 | 5.34 | 128.16 | 23.39 | 19.94 | airless | 75% | metal |
| ACRYLYD Acrylic Enamel Reducers ACR/2[3,4] | R7K212 | 6.77 | 100% | 15.00% | 0% | 85.00% | 15.37% | 0% | 0% | 0.40 | 1.5 | 14.40 | 5.75 | 3.45 | 82.86 | 15.12 | 0 | airless | 75% | metal |
| | | | | | | | | | | *Total at this ratio* | | *72.00* | *2.93* | *8.79* | *211.03* | *38.51* | *19.94* | | | |
| *Coating to reducer ratio 1:1.5* | | | | | | | | | | | | | | | | | | | | |
| Fast Dry 35 White Base[6] | 95-0912 | 11.68 | 35.05% | 15.46% | 0.54% | 19.05% | 16.11% | 0.76% | 50.97% | 0.80 | 1.5 | 28.80 | 2.23 | 2.67 | 64.08 | 11.69 | 9.97 | airless | 75% | metal |
| ACRYLYD Acrylic Enamel Reducers ACR/2[3,4] | R7K212 | 6.77 | 100% | 15.00% | 0% | 85.00% | 15.37% | 0% | 0% | 1.20 | 1.5 | 43.20 | 5.75 | 10.36 | 248.59 | 45.37 | 0 | airless | 75% | metal |
| | | | | | | | | | | *Total at this ratio* | | *72.00* | *4.34* | *13.03* | *312.68* | *57.06* | *9.97* | | | |
| | | | | | | | | | | ***Worst case for this reduced coating*** | | | ***4.34*** | ***13.03*** | ***312.68*** | ***57.06*** | ***19.94*** | | | |
| *Coating to reducer ratio 1:0.25* | | | | | | | | | | | | | | | | | | | | |
| KEM 400 Enamel, Pepsi Blue | F75KXL6633-1407 | 8.73 | 49.94% | 0% | 0% | 49.94% | 0% | 0% | 40.00% | 1.60 | 1.5 | 57.60 | 4.36 | 10.46 | 251.14 | 45.83 | 11.48 | airless | 75% | metal |
| ACRYLYD Acrylic Enamel Reducers ACR/2[3,4] | R7K212 | 6.77 | 100% | 15.00% | 0% | 85.00% | 15.37% | 0% | 0% | 0.40 | 1.5 | 14.40 | 5.75 | 3.45 | 82.86 | 15.12 | 0.00 | airless | 75% | metal |
| | | | | | | | | | | *Total for this coating & reducer at this ratio* | | *72.00* | *4.64* | *13.92* | *334.00* | *60.96* | *11.48* | | | |
| KEM 400 Enamel, Pepsi Blue | F75KXL6633-1407 | 8.73 | 49.94% | 0% | 0% | 49.94% | 0% | 0% | 40.00% | 1.60 | 1.5 | 57.60 | 4.36 | 10.46 | 251.14 | 45.83 | 11.48 | airless | 75% | metal |
| KEM Transport Synthetic Enamel ENL/2[3,4] | R4K183 | 6.65 | 100% | 20.00% | 0% | 80.00% | 16.85% | 0% | 0% | 0.40 | 1.5 | 14.40 | 5.32 | 3.19 | 76.61 | 13.98 | 0.00 | airless | 75% | metal |
| | | | | | | | | | | *Total for this coating & reducer at this ratio* | | *72.00* | *4.55* | *13.66* | *327.74* | *59.81* | *11.48* | | | |
| *Coating to reducer ratio 1:0.75* | | | | | | | | | | | | | | | | | | | | |
| KEM 400 Enamel, Pepsi Blue | F75KXL6633-1407 | 8.73 | 49.94% | 0% | 0% | 49.94% | 0% | 0% | 40.00% | 1.14 | 1.5 | 41.14 | 4.36 | 7.47 | 179.38 | 32.74 | 8.20 | airless | 75% | metal |
| ACRYLYD Acrylic Enamel Reducers ACR/2[3,4] | R7K212 | 6.77 | 100% | 15.00% | 0% | 85.00% | 15.37% | 0% | 0% | 0.86 | 1.5 | 30.86 | 5.75 | 7.40 | 177.57 | 32.41 | 0.00 | airless | 75% | metal |
| | | | | | | | | | | *Total for this coating & reducer at this ratio* | | 72.00 | *4.96* | *14.87* | *356.95* | *65.14* | 8.20 | | | |
| *Coating to reducer ratio 1:1.5* | | | | | | | | | | | | | | | | | | | | |
| KEM 400 Enamel, Pepsi Blue | F75KXL6633-1407 | 8.73 | 49.94% | 0% | 0% | 49.94% | 0% | 0% | 40.00% | 0.80 | 1.5 | 28.80 | 4.36 | 5.23 | 125.57 | 22.92 | 5.74 | airless | 75% | metal |
| KEM Transport Synthetic Enamel ENL/2[3,4] | R4K183 | 6.65 | 100% | 20.00% | 0% | 80.00% | 16.85% | 0% | 0% | 1.20 | 1.5 | 43.20 | 5.32 | 9.58 | 229.82 | 41.94 | 0.00 | airless | 75% | metal |
| | | | | | | | | | | *Total for this coating & reducer at this ratio* | | *72.00* | *4.94* | *14.81* | *355.39* | *64.86* | *5.74* | | | |
| | | | | | | | | | | ***Worst case for this reduced coating*** | | | | **14.87** | **356.95** | **65.14** | 11.48 | | | |

**Total Potential to Emit[7]** **Add worst case coating to all solvents** **PTE for Booth:** **14.87** **356.95** **65.14** **35.62**

Particulate control efficiency 95% **PM/PM10/PM2.5 PTE after issuance** **1.78**

**2. Hazardous Air Pollutants**

| | | **HAP Content Data** | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds | Weight % Cumene | Weight % Ethylbenzene | Weight % Formaldehyde | Weight % Glycol Ethers | Weight % HMDI[8] | Weight % Manganese | Weight % Methanol | Weight % MIBK[9] | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
| Topcoat and Topcoat Additives | | | | | | | | | | | | | | | | | |
| R-Cure 800 Wabash Dup3058 Premium Shadow Red | KPR0645 | 8.57 | 1.56 | 1.5 | 0% | 0.20% | 0.07% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.34% |
| urethane part B[10] | 53-X145B | 8.84 | 0.44 | 1.5 | 0% | 0.20% | 0.08% | 0% | 0% | 0.16% | 0% | 0% | 0% | 0.01% | 0% | 0% | 0.31% |
| R-Cure 800 Dun1015 Red[11] | KPR0696 | 8.63 | 1.56 | 1.5 | 0% | 0.02% | 0.03% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.11% |
| urethane part B[10] | 53-X145B | 8.84 | 0.44 | 1.5 | 0% | 0.20% | 0.08% | 0% | 0% | 0.16% | 0% | 0% | 0% | 0.01% | 0% | 0% | 0.31% |
| R-Cure 800 High Gloss Black Urethane | KPA0602 | 10.39 | 1.56 | 1.5 | 0% | 0% | 0.03% | 0% | 4.94% | 0% | 0% | 0.01% | 0% | 0% | 0% | 0% | 0.17% |
| urethane part B[10] | 53-X145B | 8.84 | 0.44 | 1.5 | 0% | 0.20% | 0.08% | 0% | 0% | 0.16% | 0% | 0% | 0% | 0.01% | 0% | 0% | 0.31% |
| Duraspar 420 Wabash White DTM[12] | AAW0448 | 13.81 | 2.00 | 1.5 | 0.06% | 0.002% | 0.01% | 0% | 1.61% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.04% |
| Duraspar 420 Wabash Gray 2.8 VOC DTM[13] | AAAW930 | 13.52 | 2.00 | 1.5 | 0.06% | 0.05% | 0.01% | 0% | 1.60% | 0% | 0% | 0% | 0% | 0% | 0.31% | 0.01% | 0.12% |
| Duraspar 430 Crete Red[14] | AARW623 | 9.52 | 2.00 | 1.5 | 0.06% | 0% | 0% | 0% | 4.05% | 0% | 0.10% | 0% | 0% | 0% | 0% | 0.03% | 0% |
| Duraspar 430 Cloud Silver Metallic[15] | AAMW338 | 9.65 | 2.00 | 1.5 | 0.08% | 0.03% | 0% | 0% | 5.00% | 0% | 0.12% | 0% | 0% | 0% | 0.20% | 0.04% | 0.06% |
| Duraspar 430 Black Low Gloss[14] | AAAW828 | 9.79 | 2.00 | 1.5 | 0.07% | 0% | 0% | 0% | 4.40% | 0% | 0.10% | 0% | 0% | 0% | 0% | 0.04% | 0.0002% |
| Duraspar 430 Werner Dark Blue Metallic[16] | AAMW423 | 9.83 | 2.00 | 1.5 | 0.07% | 0.01% | 0% | 0% | 4.34% | 0% | 0.10% | 0% | 0% | 0% | 0% | 0.04% | 0.01% |
| Duraspar 430 Green DU1317[14] | AAGK360 | 9.65 | 2.00 | 1.5 | 0.07% | 0% | 0.07% | 0% | 4.31% | 0% | 0.10% | 0% | 0% | 0% | 0% | 0.04% | 0.35% |
| Duraspar 430 Wabash Black 3.5 VOC DTM | AAAW927 | 12.15 | 2.00 | 1.5 | 0.02% | 0.03% | 0.12% | 0% | 0.84% | 0% | 0.04% | 0% | 0% | 0% | 0% | 0.03% | 0% |
| Black Fast Dry HS DTM[17] | AAA0631 | 12.40 | 2.00 | 1.5 | 0.06% | 0.07% | 0.01% | 0% | 0% | 0% | 0% | 0% | 0% | 1.16% | 0% | 0.001% | 0.14% |
| Z Shield 2222 White Enamel[18] | 0217WW14-LVOC | 8.89 | 2.00 | 1.5 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.01% | 0% | 2.73% | 0.79% |

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Refinish Offline Paint Booth**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds | Weight % Cumene | Weight % Ethylbenzene | Weight % Formaldehyde | Weight % Glycol Ethers | Weight % HMDI[8] | Weight % Manganese | Weight % Methanol | Weight % MIBK[9] | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primers | | | | | | | | | | | | | | | | | |
| High Solids Air Dry Primer, Gray[10] | E61AC134 | 11.35 | 2.00 | 1.5 | 0% | 0.02% | 0.30% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 2.02% |
| R-Cure 200 Yellow Epoxy Primer | EEY0045 | 12.42 | 1.80 | 1.5 | 0% | 0.06% | 0.09% | 0.03% | 0% | 0% | 0% | 0% | 0.31% | 0% | 0% | 0.01% | 0.51% |
| epoxy component B[5] | CEC0056 | 8.06 | 0.20 | 1.5 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| R-Cure 200 Primer Yellow AD/FD Epoxy | EEY1003 | 12.64 | 1.80 | 1.5 | 0% | 0.05% | 0% | 0% | 0% | 0% | 0% | 0% | 1.00% | 0.00% | 0.81% | 0.00% | 0.05% |
| epoxy component B[5] | CEC0056 | 8.06 | 0.20 | 1.5 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds | Weight % Cumene | Weight % Ethylbenzene | Weight % Formaldehyde | Weight % Glycol Ethers | Weight % HMDI[8] | Weight % Manganese | Weight % Methanol | Weight % MIBK[9] | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Undercoating | | | | | | | | | | | | | | | | | |
| Z Guard 10,000 Black Undercoating[20] | 0353W-XL3 | 11.57 | 2.00 | 1.5 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.13% |
| ZPG-1017F Low V.O.C.[20] | 0352LVOC | 12.10 | 2.00 | 1.5 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.12% |
| Z-C Plate[19] | 0217WCP4 | 9.97 | 2.00 | 1.5 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.69% | 0.81% |
| Z Guard 9000[21] | 0353M | 11.00 | 2.00 | 1.5 | 0% | 0% | 0.03% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.03% | 0.17% |

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds | Weight % Cumene | Weight % Ethylbenzene | Weight % Formaldehyde | Weight % Glycol Ethers | Weight % HMDI[8] | Weight % Manganese | Weight % Methanol | Weight % MIBK[9] | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sealants & Other Coatings | | | | | | | | | | | | | | | | | |
| BC 1218-61 Gray[22] | BC 1218-61 Gray | 9.17 | 2.00 | 1.5 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.20% |
| ZPG-9011 Green Sealant[23] | ZPG-9011 | 9.06 | 2.00 | 1.5 | 0% | 0% | 0.03% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.57% | 0.74% |
| ZPG-9035 Orange[24] | ZPG-9035 Orange | 7.26 | 2.00 | 1.5 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.48% |

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds | Weight % Cumene | Weight % Ethylbenzene | Weight % Formaldehyde | Weight % Glycol Ethers | Weight % HMDI[8] | Weight % Manganese | Weight % Methanol | Weight % MIBK[9] | Weight % Naphthalene | Weight % Phosphorus | Weight % Toluene | Weight % Xylenes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coatings Prepared with Variable Reducer Ratios to Accommodate Seasonal and Operating Variation | | | | | | | | | | | | | | | | | |
| *Coating to reducer ratio 1:0.25* | | | | | | | | | | | | | | | | | |
| Fast Dry 35 White Base | 95-0912 | 11.68 | 1.60 | 1.5 | 0.12% | 0% | 2.32% | 0% | 0% | 0% | 0% | 0% | 4.65% | 0% | 0% | 0% | 8.69% |
| ACRYLYD Acrylic Enamel Reducers ACR/2[5,19] | R7K212 | 6.77 | 0.40 | 1.5 | 0% | 0.01% | 1.00% | 0% | 3% | 0% | 0% | 0% | 0% | 0.20% | 0% | 41.78% | 6.79% |
| *Coating to reducer ratio 1:1.5* | | | | | | | | | | | | | | | | | |
| Fast Dry 35 White Base | 95-0912 | 11.68 | 0.80 | 1.5 | 0.12% | 0% | 2.32% | 0% | 0% | 0% | 0% | 0% | 4.65% | 0% | 0% | 0% | 8.69% |
| ACRYLYD Acrylic Enamel Reducers ACR/2[5,19] | R7K212 | 6.77 | 1.20 | 1.5 | 0% | 0.01% | 1.00% | 0% | 3% | 0% | 0% | 0% | 0% | 0.20% | 0% | 41.78% | 6.79% |
| *Coating to reducer ratio 1:0.25* | | | | | | | | | | | | | | | | | |
| KEM 400 Enamel, Pepsi Blue | F75KXL6633-1407 | 8.73 | 1.60 | 1.5 | 0.10% | 0% | 5.00% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.15% | 30.15% |
| ACRYLYD Acrylic Enamel Reducers ACR/2[5,19] | R7K212 | 6.77 | 0.40 | 1.5 | 0% | 0.01% | 1.00% | 0% | 3% | 0% | 0% | 0% | 0% | 0.20% | 0% | 41.78% | 6.79% |
| KEM 400 Enamel, Pepsi Blue | F75KXL6633-1407 | 8.73 | 1.60 | 1.5 | 0.10% | 0% | 5.00% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.15% | 30.15% |
| KEM Transport Synthetic Enamel ENL/2[17] | R4K183 | 6.65 | 0.40 | 1.5 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 48.93% | 0.93% |
| *Coating to reducer ratio 1:0.75* | | | | | | | | | | | | | | | | | |
| KEM 400 Enamel, Pepsi Blue | F75KXL6633-1407 | 8.73 | 1.14 | 1.5 | 0.10% | 0% | 5.00% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.15% | 30.15% |
| ACRYLYD Acrylic Enamel Reducers ACR/2[5,19] | R7K212 | 6.77 | 0.86 | 1.5 | 0% | 0.01% | 1.00% | 0% | 3% | 0% | 0% | 0% | 0% | 0.20% | 0% | 41.78% | 6.79% |
| *Coating to reducer ratio 1:1.5* | | | | | | | | | | | | | | | | | |
| KEM 400 Enamel, Pepsi Blue | F75KXL6633-1407 | 8.73 | 0.80 | 1.5 | 0.10% | 0% | 5.00% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0.15% | 30.15% |
| KEM Transport Synthetic Enamel ENL/2[17] | R4K183 | 6.65 | 1.20 | 1.5 | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 48.93% | 0.93% |

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Refinish Offline Paint Booth**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**HAP Potential to Emit**

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Formaldehyde Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Methanol Emissions (tons/yr) | MIBK Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Topcoat and Topcoat Additives | | | | | | | | | | | | | | | | |
| R-Cure 800 Wabash Dup3058 Premium Shadow Red | KPR0645 | | 0 | 0.18 | 6.13E-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.30 | 0.54 |
| urethane part B | 53-X145B | | 0 | 5.21E-02 | 2.07E-02 | 0 | 0 | 1.03E-02 | 0 | 0 | 0 | 2.58E-03 | 0 | 0 | 8.05E-02 | 0.17 |
| | | *Total of this two-part coating* | *0* | *0.23* | *8.20E-02* | *0* | *0* | *1.03E-02* | *0* | *0* | *0* | *2.58E-03* | | *0* | *0.38* | *0.70* |
| R-Cure 800 Dun1015 Red | KPR0696 | | 0 | 1.41E-02 | 2.65E-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9.73E-02 | 0.14 |
| urethane part B | 53-X145B | | 0 | 5.21E-02 | 2.07E-02 | 0 | 0 | 1.03E-02 | 0 | 0 | 0 | 2.58E-03 | 0 | 0 | 8.05E-02 | 0.17 |
| | | *Total of this two-part coating* | *0* | *6.62E-02* | *4.71E-02* | *0* | *0* | *1.03E-02* | *0* | *0* | *0* | *2.58E-03* | | *0* | *0.18* | *0.30* |
| R-Cure 800 High Gloss Black Urethane | KPA0602 | | 0 | 0 | 3.19E-02 | 0 | 5.25 | 0 | 0 | 1.06E-02 | 0 | 0 | 0 | 0 | 0.18 | 5.47 |
| urethane part B | 53-X145B | | 0 | 5.21E-02 | 2.07E-02 | 0 | 0 | 1.03E-02 | 0 | 0 | 0 | 2.58E-03 | 0 | 0 | 8.05E-02 | 1.66E-01 |
| | | *Total of this two-part coating* | *0* | *5.21E-02* | *5.25E-02* | *0* | *5.25* | *1.03E-02* | *0* | *1.06E-02* | *0* | *2.58E-03* | | *0* | *0.26* | *5.64* |
| Duraspar 420 Wabash White DTM | AAW0448 | | 2.72E-02 | 3.27E-03 | 1.81E-02 | 0 | 2.92 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7.71E-02 | 3.05 |
| Duraspar 420 Wabash Gray 2.8 VOC DTM | AAAW930 | | 2.66E-02 | 8.81E-02 | 1.78E-02 | 0 | 2.84 | 0 | 0 | 0 | 0 | 0 | 0.14 | 1.78E-02 | 0.21 | 3.34 |
| Duraspar 430 Crete Red | AARW623 | | 1.88E-02 | 0 | 0 | 0 | 5.07 | 0 | 3.13E-02 | 0 | 0 | 0 | 0 | 3.76E-02 | 0 | 5.15 |
| Duraspar 430 Cloud Silver Metallic | AAMW338 | | 2.54E-02 | 3.32E-02 | 0 | 0 | 6.34 | 0 | 3.80E-02 | 0 | 0 | 0 | 6.33E-02 | 5.11E-02 | 7.16E-02 | 6.62 |
| Duraspar 430 Black Low Gloss | AAAW828 | | 2.25E-02 | 0 | 0 | 0 | 5.66 | 0 | 3.22E-02 | 0 | 0 | 0 | 0 | 5.15E-02 | 2.57E-04 | 5.77 |
| Duraspar 430 Werner Dark Blue Metallic | AAMW423 | | 2.26E-02 | 1.54E-02 | 0 | 0 | 5.61 | 0 | 3.23E-02 | 0 | 0 | 0 | 0 | 5.17E-02 | 6.97E-03 | 5.73 |
| Duraspar 430 Green DU1317 | AAGK360 | | 2.22E-02 | 0 | 8.88E-02 | 0 | 5.47 | 0 | 3.17E-02 | 0 | 0 | 0 | 0 | 5.08E-02 | 0.44 | 6.10 |
| Duraspar 430 Wabash Black 3.5 VOC DTM | AAAW927 | | 7.98E-03 | 5.38E-02 | 0.19 | 0 | 1.34 | 0 | 1.60E-02 | 0 | 0 | 0 | 0 | 4.81E-02 | 0 | 1.66 |
| Black Fast Dry HS DTM | AAA0631 | | 2.44E-02 | 0.11 | 1.63E-02 | 0 | 0 | 0 | 0 | 0 | 0 | 1.89 | 0 | 1.14E-03 | 0.22 | 2.26 |
| Z Shield 2222 White Enamel | 0217WW14-LVOC | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8.41E-03 | 0 | 3.18 | 0.93 | 4.12 |
| | | ***Worst Case Topcoat and Topcoat Additives*** | ***2.72E-02*** | ***0.23*** | ***0.19*** | ***0*** | ***6.34*** | ***1.03E-02*** | ***3.80E-02*** | ***1.06E-02*** | ***0*** | ***1.89*** | ***0.14*** | ***3.18*** | ***0.93*** | ***6.62*** |

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Formaldehyde Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Methanol Emissions (tons/yr) | MIBK Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Primers | | | | | | | | | | | | | | | | |
| High Solids Air Dry Primer, Gray | E61AC134 | | 0 | 2.98E-02 | 0.45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3.01 | 3.49 |
| R-Cure 200 Yellow Epoxy Primer | EEY0045 | | 0 | 9.39E-02 | 0.13 | 4.41E-02 | 0 | 0 | 0 | 0 | 0.46 | 0 | 0 | 1.47E-02 | 0.75 | 1.49 |
| epoxy component B[4] | CEC0056 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | *Total of this two-part coating* | *0* | *9.39E-02* | *0.13* | *4.41E-02* | *0* | *0* | *0* | *0* | *0.46* | *0* | | *1.47E-02* | *0.75* | *1.49* |
| R-Cure 200 Primer Yellow AD/FD Epoxy | EEY1003 | | 0 | 7.47E-02 | 0 | 0 | 0 | 0 | 0 | 0 | 1.49 | 0 | 0.30 | 0 | 7.47E-02 | 1.95 |
| epoxy component B[4] | CEC0056 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | *Total of this two-part coating* | *0* | *7.47E-02* | *0* | *0* | *0* | *0* | *0* | *0* | *1.49* | *0.00* | *0.30* | *0* | *7.47E-02* | *1.95* |
| | | ***Worst Case Primer*** | ***0*** | ***9.39E-02*** | ***0.45*** | ***4.41E-02*** | ***0*** | ***0*** | ***0*** | ***0*** | ***1.49*** | ***0.00*** | ***0.30*** | ***1.47E-02*** | ***3.01*** | ***3.49*** |

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Formaldehyde Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Methanol Emissions (tons/yr) | MIBK Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Undercoating | | | | | | | | | | | | | | | | |
| Z Guard 10,000 Black Undercoating | 0353W-XL3 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.20 | 0.20 |
| ZPG-1017F Low V.O.C. | 0352LVOC | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.20 | 0.20 |
| Z-C Plate | 0217WCP4 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.90 | 1.06 | 1.97 |
| Z Guard 9000 | 0353M | | 0 | 0 | 4.34E-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4.34E-02 | 0.25 | 0.33 |
| | | ***Worst Case Undercoating*** | ***0*** | ***0*** | ***4.34E-02*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0.90*** | ***1.06*** | ***1.97*** |

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Formaldehyde Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Methanol Emissions (tons/yr) | MIBK Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sealants & Other Coatings | | | | | | | | | | | | | | | | |
| BC-1218-61 Gray | BC-1218-61 Gray | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.24 | 0.24 |
| ZPG-9011 Green Sealant | ZPG-9011 | | 0 | 0 | 3.57E-02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.68 | 0.88 | 1.60 |
| ZPG-9035 Orange | ZPG-9035 Orange | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.46 | 0.46 |
| | | ***Worst Case Sealants & Other Coatings*** | ***0*** | ***0*** | ***3.57E-02*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0*** | ***0.68*** | ***0.88*** | ***1.60*** |

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Refinish Offline Paint Booth**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

| Material | Product Code | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Formaldehyde Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Methanol Emissions (tons/yr) | MIBK Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coatings Prepared with Variable Reducer Ratios to Accommodate Seasonal and Operating Variation | | | | | | | | | | | | | | | | |
| *Coating to reducer ratio 1:0.25* | | | | | | | | | | | | | | | | |
| Fast Dry 35 White Base | 95-0912 | | 3.60E-02 | 0 | 2.85 | 0 | 0 | 0 | 0 | 0 | 5.71 | 0 | 0 | 0 | 10.67 | 19.26 |
| ACRYLYD Acrylic Enamel Reducers ACR/2[4] | R7K212 | | 0 | 1.78E-03 | 0.18 | 0 | 0.53 | 0 | 0 | 0 | 0 | 3.56E-02 | 0 | 7.43 | 1.21 | 9.39 |
| | | *Total at this ratio* | *3.60E-02* | *1.78E-03* | *3.03* | *0* | *0.53* | *0* | *0* | *0* | *5.71* | *3.56E-02* | *0* | *7.43* | *11.88* | *28.65* |
| *Coating to reducer ratio 1:1.5* | | | | | | | | | | | | | | | | |
| Fast Dry 35 White Base | 95-0912 | | 1.80E-02 | 0 | 1.42 | 0 | 0 | 0 | 0 | 0 | 2.85 | 0 | 0 | 0 | 5.33 | 9.63 |
| ACRYLYD Acrylic Enamel Reducers ACR/2[4] | R7K212 | | 0 | 5.34E-03 | 0.53 | 0 | 1.60 | 0 | 0 | 0 | 0 | 0.11 | 0 | 22.30 | 3.62 | 28.17 |
| | | *Total at this ratio* | *1.80E-02* | *5.34E-03* | *1.96* | *0* | *1.60* | *0* | *0* | *0* | *2.85* | *0.11* | *0* | *22.30* | *8.96* | *37.80* |
| | | ***Worst case for this reduced coating*** | ***3.60E-02*** | ***5.34E-03*** | ***3.03*** | ***0*** | ***1.60*** | ***0*** | ***0*** | ***0*** | ***5.71*** | ***0.11*** | ***0*** | ***22.30*** | ***11.88*** | ***37.80*** |
| *Coating to reducer ratio 1:0.25* | | | | | | | | | | | | | | | | |
| KEM 400 Enamel, Pepsi Blue | F75KXL6633-1407 | | 2.29E-02 | 0 | 4.59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.14 | 27.67 | 32.42 |
| ACRYLYD Acrylic Enamel Reducers ACR/2 | R7K212 | | 0 | 1.78E-03 | 0.18 | 0 | 0.53 | 0 | 0 | 0 | 0 | 3.56E-02 | 0 | 7.43 | 1.21 | 9.39 |
| | | *Total for this reducer at this ratio* | *2.29E-02* | *1.78E-03* | *4.77* | *0* | *0.53* | *0* | *0* | *0* | *0* | *3.56E-02* | *0* | *7.57* | *28.88* | *41.81* |
| KEM 400 Enamel, Pepsi Blue | F75KXL6633-1407 | | 2.29E-02 | 0 | 4.59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.14 | 27.67 | 32.42 |
| KEM Transport Synthetic Enamel ENL/2 | R4K183 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8.55 | 0.16 | 8.71 |
| | | *Total for this reducer at this ratio* | *2.29E-02* | *0* | *4.59* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *8.69* | *27.83* | *41.13* |
| *Coating to reducer ratio 1:0.75* | | | | | | | | | | | | | | | | |
| KEM 400 Enamel, Pepsi Blue | F75KXL6633-1407 | | 1.64E-02 | 0 | 3.28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9.83E-02 | 19.76 | 23.16 |
| ACRYLYD Acrylic Enamel Reducers ACR/2 | R7K212 | | 0 | 3.81E-03 | 0.38 | 0 | 1.14 | 0 | 0 | 0 | 0 | 7.62E-02 | 0 | 15.93 | 2.59 | 20.12 |
| | | *Total for this reducer at this ratio* | *1.64E-02* | *3.81E-03* | *3.66* | *0* | *1.14* | *0* | *0* | *0* | *0* | *7.62E-02* | *0* | *16.03* | *22.35* | *43.28* |
| *Coating to reducer ratio 1:1.5* | | | | | | | | | | | | | | | | |
| KEM 400 Enamel, Pepsi Blue | F75KXL6633-1407 | | 1.15E-02 | 0 | 2.29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6.88E-02 | 13.83 | 16.21 |
| KEM Transport Synthetic Enamel ENL/2 | R4K183 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25.65 | 0.49 | 26.14 |
| | | *Total for this reducer at this ratio* | *1.15E-02* | *0* | *2.29* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *0* | *25.72* | *14.32* | *42.35* |
| | | ***Worst case for this reduced coating*** | ***2.29E-02*** | ***3.81E-03*** | ***4.77*** | ***0*** | ***1.14*** | ***0*** | ***0*** | ***0*** | ***0*** | ***7.62E-02*** | ***0*** | ***25.72*** | ***28.88*** | ***43.28*** |
| | | | Cobalt Cmpd Emissions (tons/yr) | Cumene Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Formaldehyde Emissions (tons/yr) | Glycol Ethers Emissions (tons/yr) | HMDI Emissions (tons/yr) | Manganese Emissions (tons/yr) | Methanol Emissions (tons/yr) | MIBK Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Phosphorus Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
| **Total Potential to Emit**[7] | | | **3.60E-02** | **0.23** | **4.77** | **4.41E-02** | **6.34** | **1.03E-02** | **3.80E-02** | **1.06E-02** | **5.71** | **1.89** | **0.30** | **25.72** | **28.88** | **43.28** |

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Refinish Offline Paint Booth**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

*Notes*
1. *Where not provided in SDS or TDS, volume % solids calculated as 100 - Weight % Volatile (H2O & Organics)*
2. *Manual application methods include dip, roll, flow (including tube and caulking gun-type applications), brush, and wipe coatings*
3. *Exempt solvent acetone*
4. *Indented product used with coatings above*
5. *Exempt solvent t-butyl acetate*
6. *Exempts: 0.54 wt % water, 15.46 wt % parachlorobenzotrifluoride*
7. *Worst-case product shown in* ***BOLD*** *font included in PTE totals.*
8. *HDMI - hexamethylene diisocyanate, Worst-case emissions estimated as (1-transfer efficiency) because the HAP is a nonvolatile component*
9. *MIBK - methyl isobutyl ketone*
10. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6) from Table 3, 40 CFR 63, Subpart MMMM.*
11. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6) and mineral spirits (CASRN 64742-88-7) from Table 3, 40 CFR 63, Subpart MMMM.*
12. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), low aromatic white spirit (CASRN 64742-82-1), Stoddard Solvent (CASRN 8052-41-3), and hydrotreated naphtha (CASRN 64742-48-9) from Table 3, 40 CFR 63, Subpart MMMM.*
13. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), low aromatic white spirit (CASRN 64742-82-1), hydrotreated light distillate (CASRN 64742-47-8), and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
14. *Includes default HAP content of hydrotreated light distillate (CASRN 64742-47-8), Stoddard Solvent (CASRN 8052-41-3), and hydrotreated naphtha (CASRN 34742-48-9) from Table 3, 40 CFR 63, Subpart MMMM.*
15. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), hydrotreated light distillate (CASRN 64742-47-8), and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
16. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), hydrotreated light distillate (CASRN 64742-47-8), hydrotreated naphtha (CASRN 64742-48-9), and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
17. *Includes default HAP content of aromatic naphtha (CASRN 64742-95-6), aromatic solvent (CASRN 64742-94-5), low aromatic white spirit (CASRN 64742-82-1), mineral spirits (CASRN 64742-47-8), and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM, and aliphatic solvent groups from Table 4, 40 CFR 63, Subpart MMMM.*
18. *Includes default HAP content of VM & P naphtha (CASRN 64742-89-8), Stoddard Solvent (CASRN 8052-41-3), and aromatic 150 from Table 3, 40 CFR 63, Subpart MMMM. Worst case HAP content for VM & P naphtha chosen by name rather than CASRN.*
19. *Includes default HAP content of VM & P naphtha (CASRN 64742-89-8) and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM. Worst case HAP content for VM & P naphtha chosen by name rather than CASRN.*
20. *Includes default HAP content of Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
21. *Includes default HAP content of Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM and default HAP content of aliphatic solvent groups from Table 4, 40 CFR 63, Subpart MMMM.*
22. *Includes default HAP content of mineral spirits (CASRN 64742-88-7) from Table 3, 40 CFR 63, Subpart MMMM.*
23. *Includes default HAP content of Stoddard Solvent (CASRN 8052-41-3) and VM&P Naphtha (CASRN 64742-89-8) from Table 3, 40 CFR 63, Subpart MMMM and aliphatic blend from Table 4, 40 CFR 63, Subpart MMMM. Worst case HAP content for VM & P naphtha chosen by name rather than CASRN.*
24. *Includes default HAP content of mineral spirits (CASRN 64742-88-7) and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*

**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
HAP PTE (tons/yr) = Density (lb/gal) x Gal of Mat. (gal/unit) x Maximum Usage (unit/hr) x (Weight % HAP/100) x 8,760 (hr/yr) / 2,000 (lb/ton) *volatiles*
HAP PTE (tons/yr) = Density (lb/gal) x Gal of Mat. (gal/unit) x Maximum Usage (unit/hr) x (Weight % HAP/100) x 8,760 (hr/yr) / 2,000 (lb/ton) x (1 - Transfer Efficiency (%)/100) *nonvolatiles - cobalt, HMDI, manganese, phosphorus*

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Mobile Roller Coating**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

Worst case emissions shown in **bold type** included in totals. The system can apply only one coating to a unit.

**1. VOC and PM**

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Z Guard 10,000 Black Undercoating[3] | 0353W4 | 11.57 | 17.64% | 4.10% | 0% | 13.54% | 7.02% | 0% | 69.25% | 0.10 | 1.67 | 4.01 | 1.57 | 1.57 | 0.26 | 6.28 | 1.15 | 0.00 | roller | 100% | metal |
| ZPG-1017F Low V.O.C.[3] | 0352LVOC | 12.10 | 13.55% | 0.53% | 0% | 13.02% | 0.97% | 0% | 78.94% | 0.10 | 1.67 | 4.01 | 1.58 | 1.58 | 0.26 | 6.31 | 1.15 | 0.00 | roller | 100% | metal |
| Rustoleum Cold Galvanizing Compound | 7000 System | 28.30 | 10.60% | 0% | 0% | 10.60% | 0% | 0% | 54.90% | 0.10 | 1.67 | 4.01 | 3.00 | 3.00 | **0.50** | **12.02** | **2.19** | **0.00** | roller | 100% | metal |
| | | | | | | | | | | | **Coatings not otherwise exempted under 326 IAC 6-3-1(b)(5)-(8)** | 0.00 | sum of products shown in shaded cells | | | | | | | | |

**Total Potential to Emit** **Add worst case coating to all solvents**

**PTE for Booth:** **0.50** **12.02** **2.19** **0.00**

**2. Hazardous Air Pollutants**

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Xylenes | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|
| Z Guard 10,000 Black Undercoating[4] | 0353W4 | 11.57 | 0.10 | 1.67 | 0.13% | 1.11E-02 | 1.11E-02 |
| ZPG-1017F Low V.O.C.[4] | 0352LVOC | 12.10 | 0.10 | 1.67 | 0.12% | 1.10E-02 | 1.10E-02 |
| Rustoleum Cold Galvanizing Compound[5] | 7000 System | 28.30 | 0.10 | 1.67 | 0.15% | **3.11E-02** | **3.11E-02** |
| **Total of all booths** | | | | | | **3.11E-02** | **3.11E-02** |

*Notes*
*1. Reserved*
*2. Manual application methods include dip, roll, flow (including tube and caulking gun-type applications), brush, and wipe coatings*
*3. Exempt solvent acetone*
*4. Includes default HAP content of Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*
*5. Includes default HAP content of mineral spirits (CASRN 64742-88-7) and Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM.*

**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
HAP PTE (tons/yr) = Density (lb/gal) x Gal of Mat. (gal/unit) x Maximum Usage (unit/hr) x (Weight % HAP/100) x 8,760 (hr/yr) / 2,000 (lb/ton)

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Trailer Floor Coating**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**1. VOC and PM**

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency[3] | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TF Sealer-Clear | OTC062 | 6.59 | 75.65% | 0% | 0% | 75.65% | 0% | 0% | 22.80% | 1.00 | 1.67 | 40.08 | 4.99 | 4.99 | **8.33** | **199.81** | **36.47** | 0.00 | roller | 100% | wood |
| Thompson's Water Seal | -- | 6.75 | 70.67% | 0% | 0% | 70.67% | 0% | 0% | 27.00% | 1.00 | 1.67 | 40.08 | 4.77 | 4.77 | 7.97 | 191.18 | 34.89 | 0.00 | roller | 100% | wood |
| Havco Floor Shield | HWP05056 | 8.34 | 91.00% | 0% | 91% | 0.00% | 0% | 91.00% | 9.00% | 1.00 | 1.67 | 40.08 | 0 | 0 | 0 | 0 | 0 | 0 | roller | 100% | wood |
| Linseed oil | -- | 7.76 | 0% | 0% | 0% | 0.00% | 0% | 0% | 100.00% | 1.00 | 1.67 | 40.08 | 0 | 0 | 0 | 0 | 0 | 0 | roller | 100% | wood |
| | | | | | | | | | | | **Coatings not otherwise exempted under 326 IAC 6-3-1(b)(5)-(8)** | 0 | sum of products shown in shaded cells | | | | | | | | |

**Total Potential to Emit** **Add worst case coating to all solvents**

**PTE for Booth:** **8.33** **199.81** **36.47** **0**

**2. Hazardous Air Pollutants**

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Ethylbenzene | Weight % Naphthalene | Weight % Toluene | Weight % Xylenes | Ethylbenzene Emissions (tons/yr) | Naphthalene Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TF Sealer-Clear[1] | OTC062 | 6.59 | 1.00 | 1.67 | 0.18% | 0% | 0.18% | 1.18% | **8.68E-02** | 0 | **8.68E-02** | **0.57** | 0.74 |
| Thompson's Water Seal[2] | -- | 6.75 | 1.00 | 1.67 | 0% | 0.10% | 0.03% | 0.07% | 0 | **4.94E-02** | 1.43E-02 | 3.46E-02 | 0.10 |
| Havco Floor Shield | HWP05056 | 8.34 | 1.00 | 1.67 | 0% | 0% | 0% | 0% | 0 | 0 | 0 | 0 | 0 |
| Linseed oil | -- | 7.76 | 1.00 | 1.67 | 0% | 0% | 0% | 0% | 0 | 0 | 0 | 0 | 0 |
| **Total of all booths** | | | | | | | | | **8.68E-02** | **4.94E-02** | **8.68E-02** | **0.57** | **0.74** |

*Notes*
*1. HAP content based on default organic HAP fraction for Stoddard Solvent (CASRN 8052-41-3) from Table 3, 40 CFR 63, Subpart MMMM, and default organic HAP mass fraction for aliphatic solvent groups from Table 4, 40 CFR 63, Subpart MMMM (solvent-refined heavy parafinnic distillates and solvent refined light paraffinic distillates).*
*2. HAP content based on default organic HAP fractions for mineral spirits (CASRN 64742-88-7) and hydrotreated light distillate (CASRN 64742-47-8) from Table 3, 40 CFR 63, Subpart MMMM.*

**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
HAP PTE (tons/yr) = Density (lb/gal) x Gal of Mat. (gal/unit) x Maximum Usage (unit/hr) x (Weight % HAP/100) x 8,760 (hr/yr) / 2,000 (lb/ton)

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Caulking**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**1. VOC and PM**

| Material | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency[3] | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sikaflex-201 | 11.68 | 4.00% | 0% | 0% | 4.00% | 0% | 0% | 97.00% | 1.00 | 1.67 | 40.08 | 0.47 | 0.47 | **0.78** | **18.72** | **3.42** | 0.00 | roller | 100% | metal |
| Sikaflex-221 | 10.68 | 4.14% | 0% | 0% | 4.14% | 0% | 0% | 97.00% | 1.00 | 1.67 | 40.08 | 0.44 | 0.44 | 0.74 | 17.71 | 3.23 | 0.00 | roller | 100% | metal |
| Sikaflex-227 | 10.59 | 5.21% | 0% | 0% | 5.21% | 0% | 0% | 97.00% | 1.00 | 1.67 | 40.08 | 0.55 | 0.55 | 0.92 | 22.12 | 4.04 | 0.00 | roller | 100% | metal |
| Sikaflex-252 | 10.01 | 5.54% | 0% | 0% | 5.54% | 0% | 0% | 96.00% | 1.00 | 1.67 | 40.08 | 0.55 | 0.55 | **0.93** | **22.22** | **4.06** | 0.00 | roller | 100% | metal |
| Sikaflex-255 FC | 9.92 | 5.54% | 0% | 0% | 5.54% | 0% | 0% | 96.00% | 1.00 | 1.67 | 40.08 | 0.55 | 0.55 | 0.92 | 22.04 | 4.02 | 0.00 | roller | 100% | metal |
| Sikaflex-521 UV[1] | 11.68 | 1.00% | 1.00% | 0% | 0% | 1.40% | 0% | 98.60% | 1.00 | 1.67 | 40.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | roller | 100% | metal |
| Sikaflex-552[1] | 12.09 | 1.00% | 1.00% | 0% | 0% | 1.67% | 0% | 97.00% | 1.00 | 1.67 | 40.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | roller | 100% | metal |
| | | | | | | | | | | **Coatings not otherwise exempted under 326 IAC 6-3-1(b)(5)-(8)** | | 0.00 | sum of products shown in shaded cells | | | | | | | |
| **Total Potential to Emit** | | | **Add worst case coating to all solvents** | | | | | | | | | | **PTE for Booth:** | **0.93** | **22.22** | **4.06** | **0.00** | | | |

**2. Hazardous Air Pollutants**

| Material | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Ethylbenzene | Weight % MDI | Weight % Xylenes | Ethylbenzene Emissions (tons/yr) | MDI Emissions[2] (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|
| Sikaflex-201 | 11.68 | 1.00 | 1.67 | 1.00% | 1.00% | 2.00% | **0.85** | **0.26** | 1.71 | 2.82 |
| Sikaflex-221 | 10.68 | 1.00 | 1.67 | 1.00% | 1.00% | 2.14% | 0.78 | 0.23 | 1.67 | 2.69 |
| Sikaflex-227 | 10.59 | 1.00 | 1.67 | 1.00% | 1.00% | 3.21% | 0.77 | 0.23 | 2.49 | 3.49 |
| Sikaflex-252 | 10.01 | 1.00 | 1.67 | 1.00% | 1.00% | 3.54% | 0.73 | 0.22 | 2.59 | 3.54 |
| Sikaflex-255 FC | 9.92 | 1.00 | 1.67 | 1.05% | 1.00% | 4.46% | 0.76 | 0.22 | **3.24** | **4.22** |
| Sikaflex-521 UV | 11.68 | 1.00 | 1.67 | 0% | 0% | 0% | 0 | 0 | 0 | 0.00 |
| Sikaflex-552 | 12.09 | 1.00 | 1.67 | 0% | 0% | 0% | 0 | 0 | 0 | 0.00 |
| **Total of all booths** | | | | | | | **0.85** | **0.26** | **3.24** | **4.22** |

*Notes*
*1. Exempt compound is methylated siloxane*
*2. 70 weight percent of the monomer is assumed to be consumed in the curing reaction, ref. section 1.1, Appendix A to 40 CFR 63, Supbart PPPP.*

**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
HAP PTE (tons/yr) = Density (lb/gal) x Gal of Mat. (gal/unit) x Maximum Usage (unit/hr) x (Weight % HAP/100) x 8,760 (hr/yr) / 2,000 (lb/ton)

**Appendix A: Emission Calculations**
**Surface Coating Operations**
**Surface Cleaning**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**1. VOC and PM**

| Material | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency[3] | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EC-547 | 7.22 | 93.00% | 0% | 0% | 93.00% | 0.00% | 0% | 7.00% | 0.10 | 1.67 | 4.01 | 6.71 | 6.71 | 1.12 | 26.91 | 4.91 | 0 | wipe | 100% | metal |
| Release | 8.62 | 92.00% | 0% | 86.00% | 6.00% | 0.00% | 88.89% | 10.00% | 0.10 | 1.67 | 4.01 | 4.65 | 0.52 | 0.09 | 2.07 | 0.38 | 0 | wipe | 100% | metal |
| | | | | | | | | | | **Coatings not otherwise exempted under 326 IAC 6-3-1(b)(5)-(8)** | | 0.00 | sum of products shown in shaded cells | | | | | | | |
| **Total Potential to Emit** | | | **Add worst case coating to all solvents** | | | | | | | | | | **PTE for Booth:** | **1.21** | **28.99** | **5.29** | **0** | | | |

**2. Hazardous Air Pollutants**

| Material | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Naphthalene | Weight % Toluene | Naphthalene Emissions (tons/yr) | Toluene Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|
| EC-547[1] | 7.22 | 0.10 | 1.67 | 4.15% | 0.04% | 0.22 | 2.19E-03 | 0.22 |
| Release | 8.62 | 0.10 | 1.67 | 0% | 0% | 0 | 0 | 0 |
| **Total of all booths** | | | | | | **0.22** | **2.19E-03** | **0.22** |

*Notes*
*1. HAP content based on default organic HAP fraction for aromatic solvent (CASRN 64742-94-5) and hydrotreated light distillate (CASRN 64742-47-8) from Table 3, 40 CFR 63, Subpart MMMM.*

**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
HAP PTE (tons/yr) = Density (lb/gal) x Gal of Mat. (gal/unit) x Maximum Usage (unit/hr) x (Weight % HAP/100) x 8,760 (hr/yr) / 2,000 (lb/ton)

**Appendix A: Emission Calculations**
**Surface Coating Booths**
**Bonding**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**1. VOC and PM**

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method[2] | Transfer Efficiency[3] | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *BC-1, Floor, roof, and side bonding* | | | | | | | | | | | | | | | | | | | | | |
| Accelerator | Lord 19 GB | 13.01 | 0% | 0% | 0% | 0% | 0% | 0% | 100.00% | 2.30E-02 | 1.67 | 0.92 | 0 | 0 | 0 | 0 | 0 | 0 | tube | 100% | metal |
| Adhesive[1] | Lord 406 | 9.36 | 15.00% | 0% | 0% | 15.00% | 0% | 0% | 85.00% | 9.18E-02 | 1.67 | 3.68 | 1.40 | 1.40 | 0.22 | 5.17 | 0.94 | 0 | tube | 100% | metal |
| ***Floor, roof, and side Total*** | | | | | | | | | | | | | | | **0.22** | **5.17** | **0.94** | **0** | | | |
| *BC-2, D-ring bonding* | | | | | | | | | | | | | | | | | | | | | |
| Accelerator | Lord 19 GB | 13.01 | 0% | 0% | 0% | 0% | 0% | 0% | 100.00% | 3.42E-04 | 288 | 2.36 | 0 | 0 | 0 | 0 | 0 | 0 | tube | 100% | metal |
| Adhesive[1] | Lord 406 | 9.36 | 15.00% | 0% | 0% | 15.00% | 0% | 0% | 85.00% | 1.37E-03 | 288 | 9.46 | 1.40 | 1.40 | 0.55 | 13.28 | 2.42 | 0 | tube | 100% | metal |
| ***D-ring Total*** | | | | | | | | | | | | | | | **0.55** | **13.28** | **2.42** | **0** | | | |

**Coatings not otherwise exempted under 326 IAC 6-3-1(b)(5)-(8)** 0.00 sum of products shown in shaded cells

**Total Potential to Emit** **Add worst case coating to all solvents** **PTE for Booth:** **0.77** **18.44** **3.37** **0**

**2. Hazardous Air Pollutants**

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % DMA[2] | Weight % MMA[3] | DMA Emissions (tons/yr) | MMA Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|
| *BC-1, Floor, roof, and side bonding* | | | | | | | | | |
| Accelerator | Lord 19 GB | 13.01 | 0.02 | 1.67 | 0.00% | 0.00% | 0 | 0 | 0 |
| Adhesive[1] | Lord 406 | 9.36 | 0.09 | 1.67 | 1.50% | 10.50% | 9.43E-02 | 0.66 | 0.75 |
| ***Floor, roof, and side Total*** | | | | | | | ***9.43E-02*** | ***0.66*** | ***0.75*** |
| *BC-2, D-ring bonding* | | | | | | | | | |
| Accelerator | Lord 19 GB | 13.01 | 0.00 | 288 | 0.00% | 0.00% | 0 | 0 | 0 |
| Adhesive[1] | Lord 406 | 9.36 | 0.00 | 288 | 1.50% | 10.50% | 0.24 | 1.70 | 1.94 |
| ***D-ring Total*** | | | | | | | ***0.24*** | ***1.70*** | ***1.94*** |
| **Total of all bonding processes** | | | | | | | **0.34** | **2.36** | **2.69** |

*Notes*
*1. 70 weight percent of the volatile reactants are assumed to be consumed in the curing reaction, ref. section 1.1, Appendix A to 40 CFR 63, Supbart PPPP.*
*2. DMA - N,N-Dimethylaniline*
*3. MMA - Methyl Methacrylate*

**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
HAP PTE (tons/yr) = Density (lb/gal) x Gal of Mat. (gal/unit) x Maximum Usage (unit/hr) x (Weight % HAP/100) x 8,760 (hr/yr) / 2,000 (lb/ton)

**Appendix A: Emissions Calculations**
**Welding and Thermal Cutting**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**1. Existing Processes**

| PROCESS | Number of Stations | Max. electrode consumption per station (lbs/hr) | Electrode Usage (lb/day) | | EMISSION FACTORS* (lb pollutant/lb electrode) | | | | EMISSIONS (lbs/hr) | | | | HAPS (lbs/hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WELDING | | | Unit | Total | PM=PM10 =PM2.5 | Mn | Ni | Cr | PM=PM10 =PM2.5 | Mn | Ni | Cr | |
| GMAW | | | | | | | | | | | | | |
| SuperArc L-50 (carbon) (ER70S-3) | 2 | 10.45 | 251 | 502 | 5.20E-03 | 3.18E-04 | 1.00E-06 | 1.00E-06 | 0.11 | 6.65E-03 | 2.09E-05 | 2.09E-05 | 6.69E-03 |
| GMAW | | | | | | | | | | | | | |
| Murex 309LSi (SS) (ER309LSi) | 2 | 10.45 | 251 | 502 | 9.10E-03 | -- | -- | -- | 0.19 | -- | -- | -- | -- |
| Aluminum | | | | | | | | | | | | | |
| Hobart Maxal 4043 (Aluminum) (ER4043) | 1 | 10.45 | 251 | 251 | 1.32E-02 | 6.60E-04 | -- | -- | 0.14 | 6.90E-03 | -- | -- | 6.90E-03 |
| Floor Welder (ER4043) | 4 | 1.2 | 29 | 115 | 1.32E-02 | 6.60E-04 | -- | -- | 6.34E-02 | 3.17E-03 | -- | -- | 3.17E-03 |
| Side Seam Welder (ER4043) | 2 | 1.2 | 29 | 58 | 1.32E-02 | 6.60E-04 | -- | -- | 3.17E-02 | 1.58E-03 | -- | -- | 1.58E-03 |
| Mobile Welder (ER4043) | 2 | 1.2 | 29 | 58 | 1.32E-02 | 6.60E-04 | -- | -- | 3.17E-02 | 1.58E-03 | -- | -- | 1.58E-03 |
| EMISSION TOTALS | | | | | | | | | | | | | |
| Potential Emissions lbs/hr | | | | | | | | | 0.56 | 1.99E-02 | 2.09E-05 | 2.09E-05 | 1.99E-02 |
| Potential Emissions lbs/day | | | | | | | | | 13.52 | 0.48 | 5.02E-04 | 5.02E-04 | 0.48 |
| Potential Emissions tons/year | | | | | | | | | 2.47 | 0.09 | 9.15E-05 | 9.15E-05 | 0.09 |

**2. New Processes**

| PROCESS | Number of Stations | Max. electrode consumption per station (lbs/hr) | Electrode Usage (lb/day) | | EMISSION FACTORS* (lb pollutant/lb electrode) | | | | EMISSIONS (lbs/hr) | | | | HAPS (lbs/hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WELDING | | | Unit | Total | PM=PM10 =PM2.5 | Mn | Ni | Cr | PM=PM10 =PM2.5 | Mn | Ni | Cr | |
| GMAW | | | | | | | | | | | | | |
| SuperArc L-50 (carbon) (ER70S-3) | 2 | 10.45 | 251 | 502 | 5.20E-03 | 3.18E-04 | 1.00E-06 | 1.00E-06 | 0.11 | 6.65E-03 | 2.09E-05 | 2.09E-05 | 6.69E-03 |
| Lincoln DC400 (carbon) (ER70S-3) | 9 | 12.16 | 292 | 2627 | 5.20E-03 | 3.18E-04 | 1.00E-06 | 1.00E-06 | 0.57 | 3.48E-02 | 1.09E-04 | 1.09E-04 | 3.50E-02 |
| GMAW | | | | | | | | | | | | | |
| Murex 309LSi (SS) (ER309LSi) | 2 | 10.45 | 251 | 502 | 9.10E-03 | -- | -- | -- | 0.19 | -- | -- | -- | -- |
| Aluminum | | | | | | | | | | | | | |
| Hobart Maxal 4043 (Aluminum) (ER4043) | 1 | 10.45 | 251 | 251 | 1.32E-02 | 6.60E-04 | -- | -- | 0.14 | 6.90E-03 | -- | -- | 6.90E-03 |
| Mobile Welder (ER4043) | 2 | 1.2 | 29 | 58 | 1.32E-02 | 6.60E-04 | -- | -- | 3.17E-02 | 1.58E-03 | -- | -- | 1.58E-03 |
| EMISSION TOTALS | | | | | | | | | | | | | |
| Potential Emissions lbs/hr | | | | | | | | | 1.04 | 4.99E-02 | 1.30E-04 | 1.30E-04 | 5.02E-02 |
| Potential Emissions lbs/day | | | | | | | | | 24.90 | 1.20 | 3.13E-03 | 3.13E-03 | 1.20 |
| Potential Emissions tons/year | | | | | | | | | 4.54 | 0.22 | 5.71E-04 | 5.71E-04 | 0.22 |

**3. Total of All Processes**

| | Potential to Emit (tons/yr) | | | | |
|---|---|---|---|---|---|
| | PM=PM10 =PM2.5 | Mn | Ni | Cr | Total HAPs |
| Existing | 2.47 | 8.71E-02 | 9.15E-05 | 9.15E-05 | 8.73E-02 |
| New | 4.54 | 0.22 | 5.71E-04 | 5.71E-04 | 0.22 |
| Total | 7.01 | 0.31 | 6.62E-04 | 6.62E-04 | 0.31 |

**Methodology:**

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.
Electrode Usage (lb/day) = Number of Stations x Max. electrode consumption per station (lb/hr) x 24 (hr/day)

**Appendix A: Emission Calculations**
**Surface Coating Booths**
**Scratch and Dent Repair**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

**1. VOC and PM**

| Material | Product Code | Density (lb/gal) | Weight % Volatile (H20 & Organics) | Weight % Exempts | Weight % Water | Weight % Organics | Volume % Exempts | Volume % Water | Volume % Non-Volatiles[1] (solids) | Gal of Mat. (gal/unit) | Maximum (unit/hour) | Gallons of Coating per Day (gal/day) | 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) | Application Method | Transfer Efficiency | Substrate |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Scratch repair - paint pens* | | | | | | | | | | | | | | | | | | | | | |
| Averitt Gray | 31343 | 9.10 | 48.79% | 0% | 0% | 48.79% | 0% | 0% | 51.21% | 2.00E-02 | 1.67 | 0.80 | 4.44 | 4.44 | 0.15 | 3.56 | 0.65 | 0 | brush (pen) | 100% | metal |
| Gloss Black | 9507 | 7.93 | 59.14% | 0% | 0% | 59.14% | 0% | 0% | 40.86% | 2.00E-02 | 1.67 | 0.80 | 4.69 | 4.69 | **0.16** | **3.76** | **0.69** | 0 | brush (pen) | 100% | metal |
| Penske Yellow | 81179 | 8.43 | 55.28% | 0% | 0% | 55.28% | 0% | 0% | 44.72% | 2.00E-02 | 1.67 | 0.80 | 4.66 | 4.66 | 0.16 | 3.74 | 0.68 | 0 | brush (pen) | 100% | metal |
| Wabash Blue | 11014 | 8.76 | 49.09% | 0% | 0% | 49.09% | 0% | 0% | 50.91% | 2.00E-02 | 1.67 | 0.80 | 4.30 | 4.30 | 0.14 | 3.45 | 0.63 | 0 | brush (pen) | 100% | metal |
| Wabash Orange | 61106 | 8.60 | 53.84% | 0% | 0% | 53.84% | 0% | 0% | 46.16% | 2.00E-02 | 1.67 | 0.80 | 4.63 | 4.63 | 0.15 | 3.71 | 0.68 | 0 | brush (pen) | 100% | metal |
| Wabash White | 91125 | 9.51 | 45.85% | 0% | 0% | 45.85% | 0% | 0% | 54.15% | 2.00E-02 | 1.67 | 0.80 | 4.36 | 4.36 | 0.15 | 3.49 | 0.64 | 0 | brush (pen) | 100% | metal |
| ***Scratch Repair Worst Case*** | | | | | | | | | | | | | | | ***0.16*** | ***3.76*** | ***0.69*** | ***0*** | | | |
| *Dent Repair* | | | | | | | | | | | | | | | | | | | | | |
| Bondo[2] | -- | 9.51 | 17.80% | 0% | 0% | 17.80% | 0% | 0% | 82.20% | 3.61E-02 | 1.67 | 1.45 | 1.69 | 1.69 | 0.10 | 2.45 | 0.45 | 0 | putty knife | 100% | metal |
| hardener[3] | -- | 10.08 | 20.00% | 0% | 20% | 0% | 0% | 24.17% | 80.00% | 7.22E-04 | 1.67 | 0.03 | 0 | 0 | 0 | 0 | 0 | 0 | putty knife | 100% | metal |
| ***Dent Repair Total*** | | | | | | | | | | | | | | | **0.10** | **2.45** | **0.45** | **0** | | | |
| | | | | | | | | | | | | **Coatings not otherwise exempted under 326 IAC 6-3-1(b)(5)-(8)** | | | 0.00 | sum of products shown in shaded cells | | | | | | |
| **Total Potential to Emit** | | | | **Add worst case coating to all solvents** | | | | | | | | | | | **0.26** | **6.21** | **1.13** | **0** | | | |

**2. Hazardous Air Pollutants**

| Material | Product Code | Density (lb/gal) | Gal of Mat. (gal/unit) | Maximum (unit/hr) | Weight % Cobalt Compounds | Weight % Ethylbenzene | Weight % Styrene | Weight % Toluene | Weight % Xylenes | Cobalt Cmpd Emissions (tons/yr) | Ethylbenzene Emissions (tons/yr) | Styrene Emissions (tons/yr) | Toluene Emissions (tons/yr) | Xylenes Emissions (tons/yr) | Total HAPs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Scratch repair - paint pens* | | | | | | | | | | | | | | | |
| Averitt Gray[4] | 31343 | 9.10 | 0.02 | 1.67 | 0.10% | 1.00% | 0% | 60.00% | 1.01% | 1.33E-03 | 1.33E-02 | 0 | 0.80 | 1.34E-02 | 0.83 |
| Gloss Black | 9507 | 7.93 | 0.02 | 1.67 | 0.10% | 1.00% | 0% | 60.00% | 1.01% | 1.16E-03 | 1.16E-02 | 0 | 0.70 | 1.17E-02 | 0.72 |
| Penske Yellow | 81179 | 8.43 | 0.02 | 1.67 | 0.10% | 1.00% | 0% | 60.00% | 1.01% | 1.23E-03 | 1.23E-02 | 0 | 0.74 | 1.25E-02 | 0.77 |
| Wabash Blue | 11014 | 8.76 | 0.02 | 1.67 | 0.10% | 1.00% | 0% | 60.00% | 1.01% | 1.28E-03 | 1.28E-02 | 0 | 0.77 | 1.29E-02 | 0.80 |
| Wabash Orange | 61106 | 8.60 | 0.02 | 1.67 | 0.10% | 1.00% | 0% | 60.00% | 1.01% | 1.26E-03 | 1.26E-02 | 0 | 0.75 | 1.27E-02 | 0.78 |
| Wabash White | 91125 | 9.51 | 0.02 | 1.67 | 0.10% | 1.00% | 0% | 60.00% | 1.01% | **1.39E-03** | **1.39E-02** | 0 | **0.83** | **1.41E-02** | **0.86** |
| ***Scratch Repair Worst Case*** | | | | | | | | | | ***1.39E-03*** | ***1.39E-02*** | ***0*** | ***0.83*** | ***1.41E-02*** | ***0.86*** |
| *Dent repair* | | | | | | | | | | | | | | | |
| Bondo | -- | 9.51 | 0.04 | 1.67 | 0% | 0% | 30.00% | 0% | 0% | 0 | 0 | 0.75 | 0 | 0 | 0.75 |
| hardener | -- | 10.08 | 0.00 | 1.67 | 0% | 0% | 0% | 0% | 0% | 0 | 0 | 0 | 0 | 0 | 0 |
| Dent Repair Total | | | | | | | | | | ***0*** | ***0*** | ***0.75*** | ***0*** | ***0*** | ***0.75*** |
| **Total of all booths** | | | | | | | | | | **1.39E-03** | **1.39E-02** | **0.75** | **0.83** | **1.41E-02** | **1.62** |

*Notes*

*1. Where not provided in SDS or TDS, volume % solids calculated as 100 - Weight % Volatile (H2O & Organics)*
*2. Volume % Non-Volatiles calculated on a basis of the organics being entirely styrene, sp. gr. 0.903 (Table 3-2, Perry's Chemical Engineers' Handbook, 6th Ed.)*
*3. Volume % Non-Volatiles calculated on a basis of the volatiles being entirely water, density 8.34 lb/gal*
*4. HAP content based on default organic HAP fraction for mineral spirits (CASRN 64742-88-7) from Table 3, 40 CFR 63, Subpart MMMM.*

**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
HAP PTE (tons/yr) = Density (lb/gal) x Gal of Mat. (gal/unit) x Maximum Usage (unit/hr) x (Weight % HAP/100) x 8,760 (hr/yr) / 2,000 (lb/ton)

**Appendix A: Emissions Calculations**
**Cold Cleaner Degreasers**

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

In order for the degreaser to qualify as an insignificant activity under the listing in 326 IAC 2-7-1(21)(J)(vi)(DD), the source shall use solvents "the use of which, for all cleaners and solvents combined, does not exceed one hundred forty-five (145) gallons per twelve (12) months".

Based on SDS provided by the source the following PTE is based on the following conservative estimates:

The solvent has a maximum density of 6.7 lb/gal.
The solvent used in the degreaser contains 100% VOC and up to 0.1% HAP (toluene).
Utilized Safety-Kleen Premium Solvent, SDS ID: GHS 82658, rev 9/14
Default HAP content for hydrotreated light distillate (CASRN 34742-47-8) from Table 3, 40 CFR 63, Subpart MMMM

**Uncontrolled Potential Emissions (per each degreaser)**

| Emission Unit | Unit Type | Solvent | Density (lb/gal) | Weight % Organics | Volume % Exempts | Annual Throughput of Solvent (gal/yr) | Potential to Emit VOC (lb/yr) | Potential to Emit VOC (tons/yr) | Weight % HAP (toluene) | Potential to Emit HAP (lb/yr) | Potential to Emit HAP (tons/yr) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PW-1 | degreaser | Safety Kleen Premium | 6.7 | 100% | 0% | 50 | 335 | 0.17 | 0.1% | 0.34 | 1.68E-04 |
| PW-2 | degreaser | | | | | 50 | 335 | 0.17 | | 0.34 | 1.68E-04 |
| Mod. 1055 | spray gun cleaner | acetone | 6.61 | 100% | 100% | 50 | 0 | 0 | 0% | 0 | 0 |
| Mod. 1055 | spray gun cleaner | | | | | 50 | 0 | 0 | | 0 | 0 |
| | | | | | Total: | 200 | 670 | 0.34 | | 0.67 | 3.35E-04 |

Spray gun cleaners are cold cleaner degreasers as defined as 326 IAC 1-2-18.5, therefore total organic solvent usage may exceed the level specified in 326 IAC 2-7-1(21)(J)(vi)(CC). However, these operations are insignificant activities because emissions meet the exemption level specified in 326 IAC 2-1.1-3(e)(1) or 326 IAC 2-7-1(21)(E), whichever is lower.

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

**Company Name:** Wabash National L.P. (East Plant)
**Source Address:** 3460 McCarty Lane, Lafayette, IN 47905
**Permit No.:** T157-37253-00089
**SSM No.:** 157-37455-00089
**Reviewer:** Doug Logan
**Date:** 10/12/2016

| | Description | ID | Heat Input Capacity (MMBtu/hr) |
|---|---|---|---|
| Existing units | | | |
| | Heating unit | TC-1 | 0.83 |
| | Heating unit | TC-2 | 0.83 |
| New units | | **Total** | **1.66** |
| | Heating unit | TC-3 | 0.83 |
| | Heating unit | TC-4 | 0.83 |
| | | **Total** | **1.66** |

| | Heat Input Capacity MMBtu/hr | HHV mmBtu/mmscf | Potential Throughput MMCF/yr |
|---|---|---|---|
| Existing | 1.66 | 1020 | 14.3 |
| New | 1.66 | | 14.3 |

| | | Pollutant | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Emission Factor in lb/MMCF | | PM* 1.9 | PM10* 7.6 | direct PM2.5* 7.6 | SO2 0.6 | NOx 100 **see below | VOC 5.5 | CO 84 |
| Potential Emission in tons/yr | Existing | 1.35E-02 | 5.42E-02 | 5.42E-02 | 4.28E-03 | 0.71 | 3.92E-02 | 0.60 |
| | New | 1.35E-02 | 5.42E-02 | 5.42E-02 | 4.28E-03 | 0.71 | 3.92E-02 | 0.60 |
| | Total | 2.71E-02 | 0.11 | 0.11 | 8.55E-03 | 1.43 | 7.84E-02 | 1.20 |

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 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
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Hazardous Air Pollutants (HAPs)**

| | | HAPs - Organics | | | | | |
|---|---|---|---|---|---|---|---|
| | | Benzene | Dichlorobenzene | Formaldehyde | n-Hexane | Toluene | **Total - Organics** |
| Emission Factor in lb/MMcf | | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 | |
| Potential Emission in tons/yr | Existing | 1.50E-05 | 8.55E-06 | 5.35E-04 | 1.28E-02 | 2.42E-05 | **1.34E-02** |
| | New | 1.50E-05 | 8.55E-06 | 5.35E-04 | 1.28E-02 | 2.42E-05 | **1.34E-02** |
| | Total | 2.99E-05 | 1.71E-05 | 1.07E-03 | 2.57E-02 | 4.85E-05 | **2.68E-02** |

| | | HAPs - Metals | | | | | |
|---|---|---|---|---|---|---|---|
| | | Lead | Cadmium | Chromium | Manganese | Nickel | **Total - Metals** |
| Emission Factor in lb/MMcf | | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 | |
| Potential Emission in tons/yr | Existing | 3.56E-06 | 7.84E-06 | 9.98E-06 | 2.71E-06 | 1.50E-05 | **3.91E-05** |
| | New | 3.56E-06 | 7.84E-06 | 9.98E-06 | 2.71E-06 | 1.50E-05 | **3.91E-05** |
| | Total | 7.13E-06 | 1.57E-05 | 2.00E-05 | 5.42E-06 | 2.99E-05 | **7.81E-05** |
| | | | | | | **Total HAPs** | **2.69E-02** |
| | | | | | | **Worst HAP** | **2.57E-02** |

Methodology is the same as above.
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Indiana Department of Environmental Management
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*Governor*

**Carol S. Comer**
*Commissioner*

October 14, 2016

Mr. Andrew Frisbie
Wabash National L.P. (East Plant)
1000 Sagamore Parkway South
Lafayette, Indiana 47905

Re: Public Notice
Wabash National L.P. (East Plant)
Permit Levels and Permit Numbers:
Title V – Transition from MSOP – 157-37253-00089
Title V-Significant Source Modification –157-37455-00089

Dear Mr. Frisbie:

Enclosed is a copy of your draft Title V- Transition from MSOP and Significant Source Modification, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Journal & Courier in Lafayette, Indiana publish the abbreviated version of the public notice no later than October 15, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Tippecanoe County Public Library, 627 South St. in Lafayette, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Doug Logan, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 4-5328 or dial (317) 234-5328.

Sincerely,

*Vicki Biddle*

Vicki Biddle
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover letter 2/17/2016

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**ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING**

October 13, 2016

Journal & Courier
823 Park East Blvd.
Suite C
Lafayette, Indiana 47905

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Wabash National L.P. East Plant in Tippecanoe County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than October 15, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

**To ensure proper payment, please reference account # 100174737.**

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Vicki Biddle at 800-451-6027 and ask for extension 3-6867 or dial 317-237-6867.

Sincerely,

*Vicki Biddle*

Vicki Biddle
Permit Branch
Office of Air Quality

Permit Levels and Permit Numbers:
Part70 Operating PermitNo.: 157-37253-00089
Significant Source Modification No.: 157-37455-00089

Enclosure

PN Newspaper.dot 2/17/2016

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*Commissioner*

October 14, 2016

To: Tippecanoe Public Library

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

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

**Applicant Name: Wabash National L.P., (East Plant)**
**Permit Number: 157-37253-00089 and**
**157-37455-00089**

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library.dot 2/16/2016

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## Notice of Public Comment

**October 14, 2016**
**Wabash National L.P. (East Plant)**
**157-37253-00089 and 157-37455-00089**

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

**Please Note:** *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
PN AAA Cover.dot 2/17/2016

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# AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD
# DRAFT INDIANA AIR PERMIT

October 14, 2016

A 30-day public comment period has been initiated for:

**Permit Numbers:** **157-37253-00089 and 157-37455-00089**
**Applicant Name:** **Wabash National L.P. (East Plant)**
**Location:** **Lafayette, Tippecanoe County, Indiana**

The public notice, draft permit and technical support documents can be accessed via the **IDEM Air Permits Online** site at:
http://www.in.gov/ai/appfiles/idem-caats/

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

Indiana Department of Environmental Management
Office of Air Quality, Permits Branch
100 North Senate Avenue
Indianapolis, IN 46204

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.

# Mail Code 61-53

| | | | |
|---|---|---|---|
| IDEM Staff | VBIDDLE 10/13/2016 157-37455-00089 DRAFT<br>Wabash National L.P. (East Plant) 157-37253-00089 DRAFT | | AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING |
| Name and address of Sender |  | Indiana Department of Environmental Management<br>Office of Air Quality – Permits Branch<br>100 N. Senate<br>Indianapolis, IN 46204 | Type of Mail:<br>**CERTIFICATE OF MAILING ONLY** |

| Line | Article Number | Name, Address, Street and Post Office Address | Postage | Handing Charges | Act. Value (If Registered) | Insured Value | Due Send if COD | R.R. Fee | S.D. Fee | S.H. Fee | Rest. Del. Fee / Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | Andrew Frisbie Wabash National L.P. (East Plant) 1000 Sagamore Parkway South Lafayette IN 47905 (Source CAATS) | | | | | | | | | |
| 2 | | Brent Yeagy Group President - Commercial Trailer Products Wabash National L.P. (East Plant) 1000 Sagamore Parkway South Lafayette IN 47905 *(RO CAATS)* | | | | | | | | | |
| 3 | | Tippecanoe County Commissioners 20 N 3rd St, County Office Building Lafayette IN 47901 *(Local Official)* | | | | | | | | | |
| 4 | | Tippecanoe County Health Department 20 N. 3rd St Lafayette IN 47901-1211 *(Health Department)* | | | | | | | | | |
| 5 | | Lafayette City Council and Mayors Office 20 North 6th Street Lafayette IN 47901-1411 *(Local Official)* | | | | | | | | | |
| 6 | | Tippecanoe County Public Library 627 South Street Lafayette IN 47901-1470 *(Library)* | | | | | | | | | |
| 7 | | Ms. Geneva Werner 3212 Longlois Drive Lafayette IN 47904-1718 *(Affected Party)* | | | | | | | | | |
| 8 | | Mrs. Phyllis Owens 3600 Cypress Lane Lafayette IN 47905 *(Affected Party)* | | | | | | | | | |
| 9 | | Mr. Jerry White 4317 Amesbury Drive West Lafayette IN 47906 *(Affected Party)* | | | | | | | | | |
| 10 | | Ms. Rose Filley 5839 Lookout Drive West Lafayette IN 47906 *(Affected Party)* | | | | | | | | | |
| 11 | | Mr. William Cramer 128 Seminole Drive West Lafayette IN 47906 *(Affected Party)* | | | | | | | | | |
| 12 | | West Lafayette City Council and Mayors Office 609 W. Navajo West Lafayette IN 47906 *(Local Official)* | | | | | | | | | |
| 13 | | Brandon Snoddy M3V, LLC 11925 East 65th Street Indianapolis IN 46236 (Consultant) | | | | | | | | | |
| 14 | | Mr. Allen Hoffman 4740 Masons Ridge Rd. Lafayette IN 47909 *(Affected Party)* | | | | | | | | | |
| 15 | | | | | | | | | | | |

| Total number of pieces Listed by Sender | Total number of Pieces Received at Post Office | Postmaster, Per (Name of Receiving employee) | |
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| 14 | | | The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels. |

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