



*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant  
DATE: November 18, 2008  
RE: AM General LLC / 141-17644-00031  
FROM: Matthew Stuckey, Deputy Branch Chief  
Permits Branch  
Office of Air Quality

### **Notice of Decision: Approval – Effective Immediately**

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency  
401 M Street  
Washington, D.C. 20406

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



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

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

## PART 70 OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

**AM General LLC  
13200 McKinley Hwy  
Mishawaka, Indiana 46545**

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

**The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.**

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.

Operation Permit No.: T141-17644-00031	
Issued by: Original signed by	Issuance Date: November 18, 2008
Matthew Stuckey, Branch Chief Permits Branch Office of Air Quality	Expiration Date: November 18, 2013

## TABLE OF CONTENTS

<b>A. SOURCE SUMMARY</b> .....	<b>6</b>
A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]	
A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]	
A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]	
A.4 Part 70 Permit Applicability [326 IAC 2-7-2]	
<b>B. GENERAL CONDITIONS</b> .....	<b>12</b>
B.1 Definitions [326 IAC 2-7-1]	
B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)] [IC 13-15-3-6(a)]	
B.3 Term of Conditions [326 IAC 2-1.1-9.5]	
B.4 Enforceability [326 IAC 2-7-7]	
B.5 Severability [326 IAC 2-7-5(5)]	
B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]	
B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]	
B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]	
B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]	
B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]	
B.11 Emergency Provisions [326 IAC 2-7-16]	
B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]	
B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]	
B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]	
B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]	
B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]	
B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]	
B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]	
B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12(b)(2)]	
B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]	
B.21 Source Modification Requirement [326 IAC 2-7-10.5]	
B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]	
B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]	
B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]	
B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]	
<b>C. SOURCE OPERATION CONDITIONS</b> .....	<b>22</b>
<b>Emission Limitations and Standards [326 IAC 2-7-5(1)]</b>	
C.1 Opacity [326 IAC 5-1]	
C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]	
C.4 Fugitive Dust Emissions [326 IAC 6-4]	
C.5 Stack Height [326 IAC 1-7]	
C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]	
<b>Testing Requirements [326 IAC 2-7-6(1)]</b>	
C.7 Performance Testing [326 IAC 3-6]	
<b>Compliance Requirements [326 IAC 2-1.1-11]</b>	
C.8 Compliance Requirements [326 IAC 2-1.1-11]	

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

- C.9 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]
- C.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]
- C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)]  
[326 IAC 2-7-6(1)]

**Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]**

- C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]
- C.14 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]
- C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]  
[326 IAC 2-7-6]

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

- C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]  
[326 IAC 2-3]
- C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

**Stratospheric Ozone Protection**

- C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

**D.1. EMISSIONS UNIT OPERATION CONDITIONS, H1 Plant Vehicle Production..... 30**

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

- D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]
- D.1.2 Minor Source Modification Limit [326 IAC 2-7-10.5(d)(5)]
- D.1.3 Minor Source Modification Limit [326 IAC 2-7-10.5(d)(5)]
- D.1.4 Minor Source Modification Limit [326 IAC 2-7-10.5(d)(5)]
- D.1.5 Volatile Organic Compounds (VOC) Limitations [326 IAC 2-2]
- D.1.6 Particulate [326 IAC 6-3-2(d)]
- D.1.7 Particulate Emission Limitations [326 IAC 2-2]
- D.1.8 Particulate [326 IAC 6-3-2]
- D.1.9 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.1.10 Particulate Matter (PM/PM10) Emissions Determination [326 IAC 2-7-10.5(d)(5)]
- D.1.11 Particulate Matter (PM) Overspray [326 IAC 6-3-2(d)]
- D.1.12 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants [326 IAC 8-1-4]  
[326 IAC 8-1-2(a)]
- D.1.13 Testing Requirements [326 IAC 2-2]

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

- D.1.14 Visible Emissions Notations
- D.1.15 Monitoring

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

- D.1.16 Record Keeping Requirements
- D.1.17 Reporting Requirements

**D.2 EMISSIONS UNIT OPERATION CONDITIONS, Natural Gas Combustion ..... 38**

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

- D.2.1 Particulate Emissions (PM) [326 IAC 6-2]
- D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]**

- D.2.3 General Provisions Relating to NSPS Dc [326 IAC 12] [40 CFR Part 60 Subpart A]
- D.2.4 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating  
Units NSPS [40 CFR Part 60, Subpart Dc] [326 IAC 12]

**D.3 EMISSIONS UNIT OPERATION CONDITIONS, Degreasing..... 40**

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

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

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

**D.4 EMISSIONS UNIT OPERATION CONDITIONS, Insignificant Activities ..... 42**

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

D.4.1 Particulate Matter (PM) [326 IAC 6-3]

**D.5 EMISSIONS UNIT OPERATION CONDITIONS, H2 Plant Vehicle Production (Automobiles, Light Duty Trucks, and Heavier Vehicles) ..... 43**

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

D.5.1 PSD BACT Limit [326 IAC 2-2]

D.5.2 Volatile Organic Compound (VOC) [326 IAC 8-2-9] [326 IAC 8-2-2]

D.5.3 Volatile Organic Compounds [326 IAC 8-1-2(a)] [326 IAC 8-2-2]

D.5.4 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

D.5.5 Particulate Emission Limitation, Work Practices and Control Technologies [326 IAC 6-3-2(d)]

D.5.6 Gasoline Dispensing Facilities [326 IAC 8-4-6]

D.5.7 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

D.5.8 Volatile Organic Compounds (VOC)[326 IAC 8-1-2] [326 IAC 8-1-4]

D.5.9 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11] [326 IAC 2-2]

D.5.10 Volatile Organic Compounds (VOC)

D.5.11 Thermal Oxidizer Temperature [326 IAC 2-2]

D.5.12 Parametric Monitoring

D.5.13 Volatile Organic Compounds [326 IAC 8-1-2] [326 IAC 2-2]

**Compliance Monitoring Requirements**

D.5.14 Monitoring

**Record Keeping and Reporting Requirements**

D.5.15 Record Keeping Requirements

D.5.16 Reporting Requirements

**D.6 EMISSIONS UNIT OPERATION CONDITIONS, Insignificant Activities ..... 54**

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

D.6.1 Particulate Matter (PM) [326 IAC 6-2-4]

D.6.2 PSD BACT Limit [326 IAC 2-2]

**E.1 EMISSIONS UNIT OPERATION CONDITIONS..... 56**

E.1.1 General Provisions Relating to NESHAP MMMM [326 IAC 20-1] [40 CFR Part 63, Subpart A]

E.1.2 Surface Coating of Miscellaneous Metal Parts and Products NESHAP [40 CFR Part 63, Subpart MMMM]

E.1.3 One-time Deadline for Reporting, Semi-annual Reports [40 CFR Part 63, Subpart MMMM]

**E.2 EMISSIONS UNIT OPERATION CONDITIONS..... 59**

E.2.1 General Provisions Relating to NESHAP IIII [326 IAC 20-1] [40 CFR Part 63, Subpart A]

E.2.2 Automobiles and Light-Duty Trucks NESHAP [40 CFR Part 63, Subpart IIII]

E.2.3 One-Time Deadlines Relating to Automobiles and Light-Duty Surface Coating Requirements [40 CFR Part 63, Subpart III]

<b>Certification .....</b>	<b>62</b>
<b>Emergency Occurrence Report .....</b>	<b>63</b>
<b>Part 70 Usage Report.....</b>	<b>65</b>
<b>Quarterly Report.....</b>	<b>68</b>
<b>Quarterly Deviation and Compliance Monitoring Report.....</b>	<b>76</b>
<b>40 CFR Part 60, Subpart Dc.....</b>	<b>Attachment A</b>
<b>40 CFR Part 63, Subpart MMMM .....</b>	<b>Attachment B</b>
<b>40 CFR Part 63, Subpart IIII .....</b>	<b>Attachment C</b>

## SECTION A SOURCE SUMMARY

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

### A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

---

The Permittee owns and operates a stationary operation of a vehicle production plant used to manufacture vehicles for military and commercial use.

Source Address:	13200 McKinley Hwy, Mishawaka, Indiana 46545
Mailing Address:	13200 McKinley Hwy, Mishawaka, Indiana 46545
General Source Phone Number:	(574) 237-6222
SIC Code:	3711
County Location:	St. Joseph
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source under PSD Major Source, Section 112 of the Clean Air Act 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(15)]

---

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

- (a) Surface coating facilities in the H1 Plant. Under 40 CFR 63, Subpart M, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M]:
- (1) One (1) spraying and dipping operation, constructed in 1983, identified as 001, for the prime coating of small metal parts, with PM overspray from the spraying controlled by water wash, and exhausting at stacks S1 and S2.
  - (2) One (1) spraying and dipping operation, constructed in 1983, identified as 002, for the topcoating of small metal parts, with PM overspray from the spraying controlled by water wash, and exhausting at stacks S3 and S4.
  - (3) One (1) spray coating operation, constructed in 1983, identified as 003, for the prime coating of metal vehicle bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S5, S6, S7 and S8.
  - (4) One (1) spray coating operation, constructed in 1983, identified as 004, for the topcoating of metal vehicle bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S9, S10, S11 and S12.
  - (5) One (1) spray coating operation, constructed in 1983, identified as 005, for the topcoating of metal vehicle chassis, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S13, and S14.
  - (6) One (1) spray coating operation, constructed in 1983, identified as 006, for the camouflage painting of metal vehicle bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S15, S16, S17 and S18.

- (7) One (1) touch-up/repair spray coating operation, constructed in 1983, identified as 007, for the repair of metal vehicle body surfaces which may have been damaged in assembly or which may have defects in the quality of surface coating, or surface coating of parts for distribution as service (replacement) parts to be assembled in the field, with PM overspray controlled by dry filters, and exhausting to stack S19.
  - (8) One (1) Zinc Rich Primer Dip Booth, located adjacent to Small Parts Prime Booth 001 of the main H1 plant. This booth was permitted to construct in 2003.
  - (9) One (1) surface coating spray booth, identified as Booth 001b equipped with spray cup guns with compressed air, with PM overspray controlled by dry filters. This operation is used for repair painting metal parts.
  - (10) One (1) service parts booth, permitted to construct in 2007, with a spray system and a dip tank, using dry filters to control the PM overspray emissions from the spray system.
  - (11) Metal parts blasting room, constructed in 2007, capable of blasting, using 176,250 pounds of steel and plastic abrasives per hour, with two (2) cartridge filters used to control the PM and PM10 emissions.
- (b) Surface coating facilities in the Armour Building. Under 40 CFR 63, Subpart Mmmm, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart Mmmm]:
- (1) One (1) spray coating operation, constructed in 1991, identified as 008, for the prime coating and topcoating of metal vehicle bodies, with PM overspray controlled by dry filters, and exhausting to stacks S21, S22, S23, S24, S25, S26 and S27.
  - (2) One (1) spray coating operation, constructed in 1993, identified as 009, for accent and trim painting of metal vehicle bodies, with PM overspray controlled by dry filters, and exhausting to stacks S28 and S29.
- (c) Two (2) natural gas-fired boilers, identified as 010 and 011, constructed in 1983, each has a heat input capacity of 25.2 MMBtu per hour, exhausting to stacks S30 and S31, respectively, located at the H1 Plant.
- (d) H2 Plant Vehicle Production (Automobiles, Light Duty Trucks, and Heavier Vehicles):
- (1) Two (2) natural-gas-fired low NOx boilers, identified as boiler #1 and boiler #2, constructed in 2000-2001, each has a heat input capacity of 25 MMBtu/hr (Category #2). Under 40 CFR 60.40c, Subpart Dc, this is a small industrial-commercial-institutional steam generating unit [40 CFR 60, Subpart Dc].
  - (2) Miscellaneous natural gas-fired various heaters and low NOx process ovens, each constructed in 2000-2001, with a total heat input of 109 MMBtu/hr. The ovens use a Thermal Oxidizer to control VOC. The total heat input of the Thermal Oxidizer is 9.70 MMBtu/hr (Category #1).
  - (3) Body Shop in which metal body components of the automobiles, light duty trucks, and H2 vehicles are assembled. The assembly consists of the following process units: right-hand and left-hand side body, underbody, rear opening, main body, roof, door, hood and lift-gate. Various types of welding, resistance spot welding, and metal grinding/brazing are performed. The body shop process was constructed in 2000-2001.

(4) Painting Operations:

- (A) Electrodeposition dip prime process (E-Coat/ELPO) (Category #3) – Phosphate cleaning consists of the following process units: spray cleaner, immersion cleaner, spray rinse, immersion conditioner, zinc phosphate immersion cleaner, spray rinse, immersion R.O. rinse, passivation, and R.O. spray rinse.

The electrodeposition dip prime coating system (E-Coat/ELPO), which follows the phosphate cleaning, consists of the following process units: e-coat dip, ultrafilter recirculated rinse, ultrafilter dip rinse, recirculated ultrafilter spray, R.O. recirculated spray, e-coat oven (zones 1 to 5) and e-coat cooler (oven exit).

The VOC and HAPs emissions from the Electrodeposition dip prime process (E-Coat/ELPO), and the E-Coat/ELPO drying oven are controlled by a Regenerative Thermal Oxidizer. The electrodeposition dip prime process was constructed in 2000-2001. Under 40 CFR 63, Subpart M and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M][40 CFR 63, Subpart IIII].

- (B) Primer System (Category #4) – Consists of the following process units: e-coat scuff, interior sealing, exterior sealing, sealer inspection, tack-off booth, manual spray booth, robot spray booth, observation booth, common flash off enclosure, prime oven (zones 1 to 3) and prime cooler (oven exit). The primer system was constructed in 2000-2001. Under 40 CFR 63, Subpart M and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M][40 CFR 63, Subpart IIII].

The VOC and HAPs emissions from the Primer robot spray booth, observation booth, common flash off enclosure, prime oven and prime cooler (oven exit) are controlled by a Regenerative Thermal Oxidizer. The PM overspray is controlled by a water wash.

- (C) Topcoat System (Category #5) - Consists of the following process units: prime scuff and prep booth, topcoat blow off booth, basecoat manual spray booth, basecoat robot spray booth, basecoat observation booth, flash off zone, clearcoat manual spray booth, clearcoat robot spray booth, clearcoat observation booth, common flash off enclosure, topcoat oven (zones 1 to 3) and topcoat cooler (oven exit). The topcoat system was constructed in 2000-2001. Under 40 CFR 63, Subpart M and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M][40 CFR 63, Subpart IIII].

The VOC and HAPs emissions from the basecoat robot spray booth, basecoat observation booth, flash off zone, clearcoat robot spray booth, clearcoat observation booth, common flash off enclosure, topcoat oven and topcoat cooler (oven exit) are controlled by a Regenerative Thermal Oxidizer. The PM overspray is controlled by a water wash.

- (D) Vehicle Fluid Filling (Category #7) used to fill vehicles with gasoline, antifreeze, windshield washer fluid, power steering fluid, and air conditioner refrigerant. The vehicle fluid filling process was constructed in 2000-2001.
- (E) Final and Spot Repair (Category #8) including off-line spot and three (3)

final repair stations, identified as No.1, No.2, and No.3. The PM overspray from this system is controlled by dry filters. The final and spot repair process was constructed in 2000-2001. Under 40 CFR 63, Subpart M and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M][40 CFR 63, Subpart IIII].

- (F) Assembly Final Line (Category #9) consisting of interior and exterior trim components and glass installation, chassis, brake fluid, transmission fluid and engine oil fill, wheel/tires, powertrain, and final line assembly operations including a vehicle start-up and roll test used to verify if the powertrain is installed correctly. The assembly final line process was constructed in 2000-2001.
- (G) Miscellaneous Solvent Purge Usage and Cleanup (Category #10) - Solvents used in the body shop, paint shop, oven cleaning, general assembly areas, and routine housekeeping areas. In the paint shop the purge material is reclaimed internally or externally to the spray application equipment.
- (H) Miscellaneous Sealers and Adhesives (Category #11) - Various sealers and adhesives are used throughout the assembly process. Structural sealers and adhesives are used in the Body Shop. The majority of these sealers and adhesives are used in the paint shop. In General Assembly, a combination glass primer and sealer system is used in the vehicle glass installation. These sealers and adhesives are either air dried or oven cured.

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

---

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

- (a) Insignificant Activities in the Armour Building, consisting of one (1) bumper booth, with dry filters to control the PM overspray emissions [326 IAC 6-3-2].
- (b) Insignificant Activities in the Automobiles, light duty trucks, and H2 vehicles production plant:
  - (1) Bulk Storage Tanks (Category #12), constructed in 2000-2001, equipped with stage I vapor controls, submerged fill pipes, and conservation vents to minimize VOC and HAPs emissions [326 IAC 2-2][326 IAC 8-4-6].
    - (A) One (1) purge solvent vertical fixed roof above ground storage tank, ID 101, with a capacity of 10,000 gallons.
    - (B) One (1) unleaded gasoline vertical fixed roof above ground storage tank, ID 102, with a capacity of 10,000 gallons.
    - (C) One (1) antifreeze (ethylene glycol) vertical fixed roof above ground storage tank, ID 103, with a capacity of 8,000 gallons.
    - (D) One (1) window washer vertical fixed roof above ground storage tank, ID 104, with a capacity of 3,000 gallons.
    - (E) One (1) transmission fluid vertical fixed roof above ground storage tank, ID 105, with a capacity of 3,000 gallons.
    - (F) One (1) power steering fluid vertical fixed roof above ground storage

tank, ID 106, with a capacity of 3,000 gallons.

(G) One (1) waste solvent vertical fixed roof above ground storage tank, ID 107, with a capacity of 10,000 gallons.

(c) Insignificant Activities in the H1 Plant [326 IAC 2-2]:

- (1) One (1) diesel horizontal underground storage tank, with a capacity of 12,000 gallons.
- (2) One (1) automatic transmission fluid horizontal underground storage tank, with a capacity of 10,000 gallons.
- (3) One (1) antifreeze horizontal underground storage tank, with a capacity of 10,000 gallons.
- (4) One (1) gasoline rectangular above ground storage tank, with a capacity of 1,500 gallons.
- (5) One (1) diesel fuel rectangular above ground storage tank, with a capacity of 1,500 gallons.

(d) General List of Insignificant Activities

- (1) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons [326 IAC 2-2].
- (2) A petroleum fuel, other than gasoline dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month [326 IAC 2-2].
- (3) The following VOC and HAP storage containers [326 IAC 2-2]:
  - Storage tanks with capacity less than 1,000 gallons and annual throughput less than 12,000 gallons.
  - Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids.
- (4) Degreasing operations that do not exceed 145 gallons per 12 months, and not subject to 326 IAC 20-6 [326 IAC 8-3-2] [326 IAC 8-3-5].
- (5) Cleaners and solvents characterized as follows [326 IAC 2-2]:
  - Having a vapor pressure equal to or less than 2 kPa; 15 mmHg, or 0.3 psi measured at 38 degrees C (100 °F) or
  - Having a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20 °C (68 °F).
  - The use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (6) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].
- (7) The following equipment related to manufacturing activities not resulting in the emissions of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3].
- (8) Emergency generators as follows: Gasoline generators not exceeding 110 horsepower, diesel generators not exceeding 1,600 horsepower, natural gas turbines or reciprocating engines not exceeding 16,000 horsepower.

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

---

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

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

## **SECTION B GENERAL CONDITIONS**

### **B.1 Definitions [326 IAC 2-7-1]**

---

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### **B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]**

- (a) This permit, T141-17644-00031, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

---

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

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

### **B.4 Enforceability [326 IAC 2-7-7]**

---

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

### **B.5 Severability [326 IAC 2-7-5(5)]**

---

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

### **B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]**

---

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

### **B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]**

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

### **B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]**

- 
- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This

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

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(34).

**B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]**

---

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

and

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

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

**B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]**

---

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;  
  
Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or  
Telephone Number: 317-233-0178 (ask for Compliance Section)  
Facsimile Number: 317-233-6865  
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.
  - (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

**B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]**

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
  - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T141-17644-00031 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

**B.15** Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

**B.16** Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs  
[326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

---

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

---

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) without a prior permit revision, if each of the following conditions is met:
  - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
  - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
  - (4) The Permittee notifies the:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
and  
  
United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590  
  
in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and
  - (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b),(c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.  
  
Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).
- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

#### C.1 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

#### C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

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

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

#### C.5 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

#### C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:

- (A) Asbestos removal or demolition start date;
  - (B) Removal or demolition contractor; or
  - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-52 IGCN 1003  
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

### **Testing Requirements [326 IAC 2-7-6(1)]**

#### **C.7 Performance Testing [326 IAC 3-6]**

---

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

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

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue

MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

### **Compliance Requirements [326 IAC 2-1.1-11]**

#### **C.8 Compliance Requirements [326 IAC 2-1.1-11]**

---

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

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

#### **C.9 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]**

---

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

#### **C.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

---

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

#### **C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

---

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale

such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

### **Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]**

#### **C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

---

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:  
  
Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204-2251  
  
within ninety (90) days after the date of issuance of this permit.
- (c) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

#### **C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]**

---

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

#### **C.14 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]**

---

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;

- (2) review of operation and maintenance procedures and records; and/or
- (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

**C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]**

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

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

**C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]**

- (a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
  - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-50 IGCN 1003  
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

---

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a "project" (as defined in 326 IAC 2-2-1(qq)) and/or 326 IAC 2-3-1(II) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II) at an existing emissions unit, document and maintain the following records:
- (A) A description of the project.
- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
- (i) Baseline actual emissions;
- (ii) Projected actual emissions;
- (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii); and
- (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
- (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity

of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing Electric Utility Steam Generating Unit, then for that project the Permittee shall:
- (1) Submit to IDEM, OAQ a copy of the information required by (c)(1) in Section C- General Record Keeping Requirements
  - (2) Submit a report to IDEM, OAQ within sixty (60) days after the end of each year during which records are generated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements. The report shall contain all information and data describing the annual emissions for the emissions units during the calendar year that preceded the submission of report.

Reports required in this part shall be submitted to:

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

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

## **Stratospheric Ozone Protection**

### **C.19 Compliance with 40 CFR 82 and 326 IAC 22-1**

---

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) Surface coating facilities in the H1 Plant. Under 40 CFR 63, Subpart M, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M]:
- (1) One (1) spraying and dipping operation, constructed in 1983, identified as 001, for the prime coating of small metal parts, with PM overspray from the spraying controlled by water wash, and exhausting at stacks S1 and S2.
  - (2) One (1) spraying and dipping operation, constructed in 1983, identified as 002, for the topcoating of small metal parts, with PM overspray from the spraying controlled by water wash, and exhausting at stacks S3 and S4.
  - (3) One (1) spray coating operation, constructed in 1983, identified as 003, for the prime coating of metal vehicle bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S5, S6, S7 and S8.
  - (4) One (1) spray coating operation, constructed in 1983, identified as 004, for the topcoating of metal vehicle bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S9, S10, S11 and S12.
  - (5) One (1) spray coating operation, constructed in 1983, identified as 005, for the topcoating of metal vehicle chassis, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S13, and S14.
  - (6) One (1) spray coating operation, constructed in 1983, identified as 006, for the camouflage painting of metal vehicle bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S15, S16, S17 and S18.
  - (7) One (1) touch-up/repair spray coating operation, constructed in 1983, identified as 007, for the repair of metal vehicle body surfaces which may have been damaged in assembly or which may have defects in the quality of surface coating, or surface coating of parts for distribution as service (replacement) parts to be assembled in the field, with PM overspray controlled by dry filters, and exhausting to stack S19.
  - (8) One (1) Zinc Rich Primer Dip Booth, located adjacent to Small Parts Prime Booth 001 of the main. This booth was permitted to construct in 2003.
  - (9) One (1) surface coating spray booth, identified as Booth 001b equipped with spray cup guns with compressed air, with PM overspray controlled by dry filters. This operation is used for repair painting metal parts.
  - (10) One (1) service parts booth, permitted to construct in 2007, with a spray system and a dip tank, using dry filters to control the PM overspray emissions from the spray system.
  - (11) Metal parts blasting room, constructed in 2007, capable of blasting 2.5 tons of parts per hour, using 176,250 pounds of steel and plastic abrasives per hour, with two (2) cartridge filters used to control the PM and PM10 emissions.
- (b) Surface coating facilities in the Armour Building. Under 40 CFR 63, Subpart M, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M]:
- (1) One (1) spray coating operation, constructed in 1991, identified as 008, for the prime coating and topcoating of metal vehicle bodies, with a maximum capacity of 2 units per

hour, with PM overspray controlled by dry filters, and exhausting to stacks S21, S22, S23, S24, S25, S26 and S27.

- (2) One (1) spray coating operation, constructed in 1993, identified as 009, for accent and trim painting of metal vehicle bodies, with a maximum capacity of 2 units per hour, with PM overspray controlled by dry filters, and exhausting to stacks S28 and S29.

Insignificant Activities

- (a) Insignificant Activities in the Armour Building, consisting of one (1) bumper booth, with dry filters to control the PM overspray emissions [326 IAC 6-3-2].

(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 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]**

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicators of the Zinc Rich Primer Dip Booth, the Service Parts Booth, Spray and Dip Coating Booths 001 and 002, Spray Coating Booths 003 through 009, and 001b shall be limited to the following:

- (a) The Permittee shall not allow the discharge into the atmosphere of VOC in excess of four and three-tenths (4.3) pounds of VOC per gallon of coating, excluding water, for clear coatings, as delivered to the applicator; for dip coating compliance with 326 IAC 8-1-2(a)(9)(A), the equivalent emission limit is ten and two-tenths (10.2) pounds of VOC per gallon of coating solids.
- (b) The Permittee shall not allow the discharge into the atmosphere of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, for forced warm air dried coatings, as delivered to the applicator; for dip coating compliance with 326 IAC 8-1-2(a)(9)(A), the equivalent emission limit is six and seven-tenths (6.7) pounds of VOC per gallon of coating solids.
- (c) Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of the coating operations during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

**D.1.2 Minor Source Modification Limit [326 IAC 2-7-10.5(d)(5)]**

- (a) Pursuant to MSM 141-17101-00031, issued March 12, 2003, the total VOC input to Zinc Rich Primer Dip Coating Booth, and associated clean-up activities, shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) Pursuant to MSM 141-16912-00031, issued June 10, 2003, the total VOC input to Coating Booth 001b, and associated clean-up activities shall be limited to less than 14 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the limits will limit the potential to emit VOC from the Zinc Rich Primer Dip Coating Booth and the Coating Booth 001b to less than 40 tons per year and renders 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to MSM 141-17101-00031, issued March 12, 2003 and MSM 141-16912-00031, issued June 10, 2003.

- (c) Pursuant to MSM 141-17101-00031, issued March 12, 2003 the total single HAP input to Zinc Rich Primer Dip Coating Booth, and associated clean-up activities, shall be limited to

less than 10 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with this limit will limit single HAP emissions to less than 10 tons per year and render 326 IAC 2-4.1 (Major Sources of HAPs) not applicable to MSM 141-17101-00031, issued March 12, 2003.

- (d) Pursuant to MSM 141-16912-00031, issued June 10, 2003 the total single HAP input to Coating Booth 001b, and associated clean-up activities, shall each be limited to less than 10 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (e) Pursuant to MSM 141-16912-00031, issued June 10, 2003 the total combined HAP input to Coating Booth 001b, and associated clean-up activities, shall be limited to less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the limits will limit single and combined HAP to less than 10 and 25 tons per year, respectively, and will render 326 IAC 2-4.1 (Major Sources of HAPs) not applicable to MSM 141-16912-00031, issued June 10, 2003.

#### D.1.3 Minor Source Modification Limit [326 IAC 2-7-10.5(d)(5)]

Pursuant to CP141-3332-00031, issued January 10, 1994, the coatings applied by booth 009 shall be limited to the following:

- (a) The total VOC input to booth 009, including clean up solvents, shall be less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The coatings applied by booth 009 shall be limited such that the total PM emissions shall be less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (c) The coatings applied by booth 009 shall be limited such that the total PM10 emissions shall be less than 15 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (d) The transfer efficiency of paint booth 009 shall not be less than 75%.
- (e) The control efficiency of the dry filter shall not be less than 80%.

Compliance with these limits limit VOC, PM, and PM10 to less than 25, 25, and 15 tons per year, respectively, and renders 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to Registration CP141-3332-00031, issued January 10, 1994.

#### D.1.4 Minor Source Modification Limit [326 IAC 2-7-10.5(d)(5)]

Pursuant to CP141-5270-00031, issued May 1, 1996 and T141-6023-00031, issued on February 25, 1999 the coatings applied by booth 008 shall be limited to the following:

- (a) The total VOC input to booth 008, including clean up solvents, shall be less than 40 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) The coatings applied by booth 008 shall be limited such that the total PM emissions shall be less than 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

- (c) The coatings applied by booth 008 shall be limited such that the total PM10 emissions shall be less than 15 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (d) The transfer efficiency of paint booth 008 shall not be less than 75%.
- (e) The control efficiency of the dry filter shall not be less than 80%.

Compliance with these limits limit VOC, PM, and PM10 to less than 40, 25, and 15 tons per year, respectively, and renders 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to CP141-5270-00031, issued May 1, 1996 and T141-6023-00031, issued on February 25, 1999.

#### D.1.5 Volatile Organic Compounds (VOC) Limitations [326 IAC 2-2]

Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration), the total VOC emissions from coating booths 001 through 007, and insignificant degreasers and their associated clean-up activities shall be limited such that the potential to emit does not exceed 375.8 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

#### D.1.6 Particulate [326 IAC 6-3-2(d)]

- (a) Pursuant to 326 IAC 6-3-2(d), particulate from Surface Coating Operations 007, 008, 009, 001b, the service parts booth, and the bumper booth shall be controlled by a dry particulate filter and the Permittee shall operate the control device in accordance with manufacturer's specifications.
- (b) Pursuant to 326 IAC 6-3-2(d), particulate from Surface Coating Operations 001, 002, 003, 004, 005, 006 shall be controlled by a water wash and the Permittee shall operate the control device in accordance with manufacturer's specifications.

#### D.1.7 Particulate Emission Limitations [326 IAC 2-2]

- (a) The PM emissions from the Metal Parts Blasting Room and the service parts booth shall not exceed 5.71 pounds per hour.
- (b) The PM10 emissions from the Metal Parts Blasting Room and the service parts booth shall not exceed 3.42 pounds per hour.

Compliance with these limits above limit PM and PM10 to less than 25 and 15 tons per year, respectively, and will render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification completed pursuant to SSM 141-23096-00031, issued March 14, 2007.

#### D.1.8 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Metal Parts Blasting Room shall not exceed 7.58 pounds per hour when operating at a process weight rate of 2.5 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rates of up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

#### D.1.9 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

## Compliance Determination Requirements

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

---

- (a) Pursuant to 326 IAC 8-1-2(a)(9), compliance with the VOC content limit in Condition D.1.1 for the Dip Coating Booths shall be determined using the following equation:

$$VOC_A = \frac{\sum_i (W_{oi} D_{ci} Q_i) + \sum_j (W_{oj} D_{dj} Q_j)}{\sum_i (V_{ni} Q_i)}$$

Where

$VOC_A$  = The as-applied, VOC content in pound VOC per gallon (lb VOC/gal) of coating solids for a dip coating or flow coating, calculated on a thirty (30) day rolling average basis.

$W_{oi}$  = Percent VOC by weight of each as supplied coating (i) added to the dip coating or flow coating process, expressed as a decimal fraction (that is 55% = 0.55).

$D_{ci}$  = Density of each as supplied coating (i) added to the dip coating or flow coating process, in pounds per gallon.

$Q_i$  = Quantity of each as supplied coating (i) added to the dip coating or flow coating process, in gallons.

$V_{ni}$  = Percent solids by volume of each as supplied coating (i) added to the dip coating or flow coating process, expressed as a decimal fraction.

$W_{oj}$  = Percent VOC by weight of each thinner (j) added to the dip coating or flow coating process, expressed as a decimal fraction.

$D_{dj}$  = Density of each thinner (j) added to the dip coating or flow coating process, in pounds per gallon.

$Q_j$  = Quantity of each thinner (j) added to the dip coating or flow coating process, in gallons.

- (b) Compliance with the VOC content and usage limitations contained in Conditions D.1.1, for the Spray Coating Booths 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 "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.

### D.1.11 Particulate Matter (PM/PM10) Emissions Determination [326 IAC 2-7-10.5(d)(5)]

---

Compliance with Conditions D.1.3(b), D.1.3(c), D.1.4(b), and D.1.4(c) shall be determined by calculating the PM/PM10 emissions associated with each coating applied by paint booths 008 and 009 using the following equation:

$$PM / PM10 = CU \times D \times W\%S \times \left(1 - \frac{TE}{100}\right) \times \left(1 - \frac{CE}{100}\right) \times \frac{1}{2000}$$

Where:

PM/PM10 = The total PM/PM10 emissions (ton/month) for a given coating.

CU = The total coating use (gal coating/month) of a given coating.

D = The density (lb coating/gal coating) of a given coating.

W%S = The weight percent solids (lb solids/lb coating) of a given coating.

- TE = The transfer efficiency (%) of the spray applicators. This value shall equal 75% or a value determined from the most recent valid compliance demonstration.
- CE = The control efficiency (%) of the dry filters. This value shall equal 90% or a value determined from the most recent valid compliance demonstration.

The total PM/PM10 emissions (ton/month) from paint booths 008 and 009 is equal to the sum of the PM/PM10 emissions associated with each coating applied by those booths.

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

---

- (a) Pursuant to 326 IAC 6-3-2(d), the particulate overspray emissions from the six (6) paint booths (001 through 006) shall be controlled by water wash and shall operate the control devices in accordance with the manufacturer's specifications.
- (b) Pursuant to 326 IAC 6-3-2(d), the particulate overspray emissions from the six (6) paint booths (001b, 007 through 009, the service parts booth, and the bumper booth), including the new Service Parts Booth shall be controlled by dry filters and the Permittee shall operate the control devices in accordance with the manufacturer's specifications.
- (c) Pursuant to 326 IAC 6-3-2(d), the particulate emissions from the Metal Blasting Room shall be controlled by cartridge filters and the Permittee shall operate the control device in accordance with the manufacturer's specifications.

#### **D.1.13 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants [326 IAC 8-1-4] [326 IAC 8-1-2(a)]**

---

Compliance with the VOC and HAP content and usage limitations contained in Conditions D.1.1, D.1.2, D.1.3(a), D.1.4(a), and D.1.5 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 "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.

#### **D.1.14 Testing Requirements [326 IAC 2-2]**

---

In order to demonstrate compliance with Conditions D.1.7 the Permittee shall perform testing on the Metal Parts Blasting Room within five (5) years from the date of the last valid compliance demonstration test using a method acceptable to IDEM, OAQ. These tests shall be repeated at least once every five (5) years from the most recent valid compliance demonstration. PM10 includes filterable PM10 and condensable PM10. Testing shall be conducted in accordance with Section C - Performance Testing.

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

#### **D.1.15 Visible Emissions Notations**

---

- (a) Visible emission notations of the Metal Parts Blasting Room stack exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### D.1.16 Monitoring

---

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the Surface Coating Operations 007, 008, 009, 001b, the service parts booth, and the bumper booth while one or more of the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) Daily inspections shall be performed to verify that the water level of the water pans meet the manufacturer's recommended level. To monitor the performance of the water pans, the water level of the pans shall be maintained weekly at a level where surface agitation indicates impact of the air flow. Water shall be kept free of solids and floating material that reduces the capture efficiency of the water pan. To monitor the performance of the baffles, weekly inspections of the baffle panels shall be conducted to verify placement and configuration meet recommendations of the manufacturer. In addition, weekly observations shall be made of the overspray from the Surface Coating Operations 001, 002, 003, 004, 005, 006 while one or more of the booths are in operation. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (c) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. Section C - Response to Excursions or Exceedances for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

#### D.1.17 Record Keeping Requirements

---

- (a) Pursuant to 326 IAC 8-1-2(a)(9)(B)(ii) and to document compliance with Condition D.1.1 for the Dip Coating Booths, the Permittee shall maintain daily records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC limit in Condition D.1.1.
  - (1) The following parameters for each coating, thinner, or other material as supplied:
    - (i) The coating, thinner, or other material identification number.
    - (ii) The volume used.
    - (iii) The mix ratio.
    - (iv) The density or specific gravity.

- (v) The weight percent of total volatiles, water, solids, and exempt solvents.
  - (vi) The volume percent of solids.
  - (2) The VOC content of each coating and thinner as supplied.
  - (3) The VOC content of each coating as applied.
- (b) To document compliance with Conditions D.1.1 for the Spray Coating Booths, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits established in Conditions D.1.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
  - (1) The VOC content of each coating material and solvent used.
  - (2) The amount of coating material and solvent less water used on monthly basis.
    - (A) Records shall include purchase orders, invoices, 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 compliance with Conditions D.1.2(a), D.1.2(b), D.1.3(a), D.1.4(a), and D.1.5, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits established in Conditions D.1.2, D.1.3, D.1.4, and D.1.5. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
  - (1) The VOC content of each coating material and solvent used.
  - (2) The amount of coating material and solvent less water used on monthly basis.
    - (A) Records shall include purchase orders, invoices, 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.
  - (3) The cleanup solvent usage for each month;
  - (4) The total VOC usage for each month; and
  - (5) The weight of VOCs emitted for each compliance period.
- (d) To document compliance with Conditions D.1.2(c), D.1.2(d), and D.1.2(e), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP usage limits and established in Condition D.1.2.
  - (1) The HAP content of each coating material and solvent used.
  - (2) The amount of coating material and solvent less water used on monthly basis.
    - (A) Records shall include purchase orders, invoices, 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.
  - (3) The cleanup solvent usage for each month;
  - (4) The total HAP usage for each month; and
  - (5) The weight of HAP emitted for each compliance period.
- (e) To document compliance with Conditions D.1.3(b), D.1.3(c), D.1.4(b), and D.1.4(c), the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to demonstrate compliance with the PM/PM10 emission limits established in Condition D.1.3 and D.1.4.
- (1) The amount of each coating material used (as applied). Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
  - (2) The density and weight percent solids of each coating material used (as applied).
- (f) To document compliance with Condition D.1.15, the Permittee shall maintain records of daily visible emission notations of the Metal Parts Blasting Room stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (g) To document compliance with Condition D.1.16, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections.
- (h) To document compliance with Condition D.1.16, the Permittee shall maintain a log of weekly overspray observations, weekly observations of the water level in the pans, daily and monthly inspections.
- (i) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.18 Reporting Requirements

A monthly summary of the information to document compliance with Conditions D.1.2, D.1.3, D.1.4, and D.1.5 shall be submitted quarterly to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (c) Two (2) natural gas-fired boilers, identified as 010 and 011, constructed in 1983, each has a heat input capacity of 25.2 MMBtu per hour, exhausting to stacks S30 and S31, respectively, located at the H1 Plant.
- (d) Automobiles, light duty trucks, and H2 vehicles production plant:
  - (1) Two (2) natural-gas-fired low NOx boilers, identified as boiler #1 and boiler #2, constructed in 2000-2001, each has a heat input capacity of 25 MMBtu/hr (Category #2). Under 40 CFR 60.40c, Subpart Dc, this is a small industrial-commercial-institutional steam generating unit [40 CFR 60, Subpart Dc].

(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 Particulate Emissions (PM) [326 IAC 6-2]

Pursuant to 326 IAC 6-2-4 (Particulate Emissions Limitations):

- (a) Particulate emissions from the two (2) 25.2 MMBtu per hour natural gas-fired boilers (010 and 011) shall be limited to 0.39 pounds per MMBtu heat input.
- (b) Particulate emissions from the two (2) 25.0 MMBtu per hour natural gas-fired boilers (#1 and #2) and the two (2) insignificant boilers shall be limited to 0.33 pounds per million Btu heat input.

These limits were calculated using the following equation:

$$Pt = \frac{1.09}{Q^{0.26}} \quad \text{Where: } Pt = \text{pounds of PM emitted per MMBtu heat input}$$

Q = total source heat input capacity

#### D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for boiler #1, boiler #2, boiler 010, and boiler 011.

### New Source Performance Standards (NSPS) Requirements [326 IAC 2-7-5(1)]

#### D.2.3 General Provisions Relating to NSPS Dc [326 IAC 12] [40 CFR Part 60 Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for boiler #1 and boiler #2, except as otherwise specified in 40 CFR Part 60, Subpart Dc.
- (b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

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

D.2.4 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units  
NSPS [40 CFR Part 60, Subpart Dc] [326 IAC 12]

---

The Permittee shall comply with the following provisions of Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12 for the low NOx boilers (Category #2) as specified as follows:

- (1) 40 CFR 60.40c(a) and (d);
- (2) 40 CFR 60.41c; and
- (3) 40 CFR 60.48c(a), (g), and (i).

## SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

Insignificant Activities:

- (d) General List of Insignificant Activities
  - (4) Degreasing operations that do not exceed 145 gallons per 12 months, and not subject to 326 IAC 20-6 [326 IAC 8-3-2] [326 IAC 8-3-5].

(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 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

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

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100 °F)));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
    - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

## SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

Insignificant Activities:

- (d) General List of Insignificant Activities
  - (7) The following equipment related to manufacturing activities not resulting in the emissions of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3].

(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.4.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2(e)(2) (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the brazing equipment and soldering equipment shall be limited to less than 0.551 pounds per hour when operating at a maximum process weight less than 100 pounds per hour.

## SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

(d) H2 Plant Vehicle Production (Automobiles, Light Duty Trucks, and Heavier Vehicles):

(2) Miscellaneous natural gas-fired various heaters and low NOx process ovens, each constructed in 2000-2001, with a total heat input of 109 MMBtu/hr. The ovens use a Thermal Oxidizer to control VOC. The total heat input of the Thermal Oxidizer is 9.70 MMBtu/hr (Category #1).

(3) Body Shop in which metal body components of the automobiles, light duty trucks, and H2 vehicles are assembled. The assembly consists of the following process units: right-hand and left-hand side body, underbody, rear opening, main body, roof, door, hood and lift-gate. Various types of welding, resistance spot welding, and metal grinding/brazing are performed. The body shop process was constructed in 2000-2001.

(4) Painting Operations:

(A) Electrodeposition dip prime process (E-Coat/ELPO) (Category #3) – Phosphate cleaning consists of the following process units: spray cleaner, immersion cleaner, spray rinse, immersion conditioner, zinc phosphate immersion cleaner, spray rinse, immersion R.O. rinse, passivation, and R.O. spray rinse.

The electrodeposition dip prime coating system (E-Coat/ELPO), which follows the phosphate cleaning, consists of the following process units: e-coat dip, ultrafilter recirculated rinse, ultrafilter dip rinse, recirculated ultrafilter spray, R.O. recirculated spray, e-coat oven (zones 1 to 5) and e-coat cooler (oven exit).

The VOC and HAPs emissions from the Electrodeposition dip prime process (E-Coat/ELPO), and the E-Coat/ELPO drying oven are controlled by a Regenerative Thermal Oxidizer. The electrodeposition dip prime process was constructed in 2000-2001. Under 40 CFR 63, Subpart Mmmm and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart Mmmm][40 CFR 63, Subpart IIII].

(B) Primer System (Category #4) – Consists of the following process units: e-coat scuff, interior sealing, exterior sealing, sealer inspection, tack-off booth, manual spray booth, robot spray booth, observation booth, common flash off enclosure, prime oven (zones 1 to 3) and prime cooler (oven exit). The primer system was constructed in 2000-2001. Under 40 CFR 63, Subpart Mmmm and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart Mmmm][40 CFR 63, Subpart IIII].

The VOC and HAPs emissions from the Primer robot spray booth, observation booth, common flash off enclosure, prime oven and prime cooler (oven exit) are controlled by a Regenerative Thermal Oxidizer. The PM overspray is controlled by a water wash.

(C) Topcoat System (Category #5) - Consists of the following process units: prime scuff and prep booth, topcoat blow off booth, basecoat manual spray booth, basecoat robot spray booth, basecoat observation booth, flash off zone, clearcoat manual spray booth, clearcoat robot spray booth, clearcoat observation booth, common flash off enclosure, topcoat oven (zones 1 to 3) and topcoat cooler (oven exit). The topcoat system was constructed in 2000-2001. Under 40 CFR 63, Subpart Mmmm and Subpart IIII, this is an existing

metal parts and products surface coating facility [40 CFR 63, Subpart M][40 CFR 63, Subpart IIII].

The VOC and HAPs emissions from the basecoat robot spray booth, basecoat observation booth, flash off zone, clearcoat robot spray booth, clearcoat observation booth, common flash off enclosure, topcoat oven and topcoat cooler (oven exit) are controlled by a Regenerative Thermal Oxidizer. The PM overspray is controlled by a water wash.

- (D) Vehicle Fluid Filling (Category #7) used to fill vehicles with gasoline, antifreeze, windshield washer fluid, power steering fluid, and air conditioner refrigerant. The vehicle fluid filling process was constructed in 2000-2001.
- (E) Final and Spot Repair (Category #8) including off-line spot and three (3) final repair stations, identified as No.1, No.2, and No.3. The PM overspray from this system is controlled by dry filters. The final and spot repair process was constructed in 2000-2001. Under 40 CFR 63, Subpart M and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M][40 CFR 63, Subpart IIII].
- (F) Assembly Final Line (Category #9) consisting of interior and exterior trim components and glass installation, chassis, brake fluid, transmission fluid and engine oil fill, wheel/tires, powertrain, and final line assembly operations including a vehicle start-up and roll test used to verify if the powertrain is installed correctly. The assembly final line process was constructed in 2000-2001.
- (G) Miscellaneous Solvent Purge Usage and Cleanup (Category #10) - Solvents used in the body shop, paint shop, oven cleaning, general assembly areas, and routine housekeeping areas. In the paint shop the purge material is reclaimed internally or externally to the spray application equipment.
- (H) Miscellaneous Sealers and Adhesives (Category #11) - Various sealers and adhesives are used throughout the assembly process. Structural sealers and adhesives are used in the Body Shop. The majority of these sealers and adhesives are used in the paint shop. In General Assembly, a combination glass primer and sealer system is used in the vehicle glass installation. These sealers and adhesives are either air dried or oven cured.

#### Insignificant Activities

(b) Insignificant Activities in the Automobiles, light duty trucks, and H2vehicles production plant:

- (1) Bulk Storage Tanks (Category #12), constructed in 2000-2001, equipped with stage I vapor controls, submerged fill pipes, and conservation vents to minimize VOC and HAPs emissions [326 IAC 2-2][326 IAC 8-4-6].
  - (A) One (1) purge solvent vertical fixed roof above ground storage tank, ID 101, with a capacity of 10,000 gallons.
  - (B) One (1) unleaded gasoline vertical fixed roof above ground storage tank, ID 102, with a capacity of 10,000 gallons.
  - (C) One (1) antifreeze (ethylene glycol) vertical fixed roof above ground storage tank, ID 103, with a capacity of 8,000 gallons.
  - (D) One (1) window washer vertical fixed roof above ground storage tank, ID 104, with a capacity of 3,000 gallons.

(E)	One (1) transmission fluid vertical fixed roof above ground storage tank, ID 105, with a capacity of 3,000 gallons.
(F)	One (1) power steering fluid vertical fixed roof above ground storage tank, ID 106, with a capacity of 3,000 gallons.
(G)	One (1) waste solvent vertical fixed roof above ground storage tank, ID 107, with a capacity of 10,000 gallons.

(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.5.1 PSD BACT Limit [326 IAC 2-2]**

Pursuant to 326 IAC 2-2 (PSD) and the BACT determination in SSM 141-11673-00031, issued on June 28, 2000 and revised by SSM 141-22343-00031, issued on March 14, 2007, the automobiles, light duty trucks, and H2 vehicles plant shall be limited as follows:

- (a) The automobiles, light duty trucks, and H2 vehicles plant production rate shall be limited to 86,000 vehicles per twelve (12) consecutive month period with compliance determined at the end of each month. Daily maximum production shall not exceed 364 vehicles.
- (b) The volatile organic material (VOC) usages, and natural gas usages from the automobiles, light duty trucks, and H2 vehicles plant shall be limited such that the summation of the VOC emissions from all facilities at this plant shall not exceed 260 tons per 12-month period, rolled on a monthly basis.
- (c) The limitations for the following Automobiles, light duty trucks, and H2 vehicles surface coating facilities shall be as follows:

Facilities/Operations	Controlled VOC Limit (Pounds of VOC/Gallon Applied Coating Solids)
E-Coat/ELPO System	0.04
Primer /Topcoat System	4.5

The VOC limit in pounds of VOC/gallon applied coating solids shall be determined on a daily-volume-weighted average and actual transfer efficiencies.

- (d) The Regenerative Thermal Oxidizer (RTO) used to control VOC emissions from the E-Coat/ELPO and Primer/Topcoat paint systems shall achieve a minimum VOC destruction efficiency of 95%.
- (e) Good Work Practices To Reduce VOC Emissions:
  - (1) Conservation vents, submerged fill pipes and Stage I Vapor Recovery System where appropriate shall be installed for the gasoline storage tanks.
  - (2) The use of robotic paint application system to minimize paint usage.
  - (3) Capturing of paint lines cleaning solvent for recycling.
  - (4) Capturing of solvent purged from paint lines for off-site recycling and/or other processing.

- (5) The use of masking material to protect certain equipment, walls, and floors around the booths from overspray, thus reducing the cleaning solvent usage.
- (6) The use of water-based coatings when feasible.
- (7) Water blasting of vehicle carriers.
- (8) The use of closed containers to store or dispose of cloth, paper, or other materials impregnated with VOC.
- (9) The use of Stage 2 Recovery System in the fluid filling operation.
- (10) Minimizing spills in the vehicle fluid filling operation.
- (11) Closing the receiving vessel after it has been filled with the fluid.
- (12) All paint mixing containers, other than day tanks equipped with continuous agitation systems, which contain organic VOC containing coatings and other materials shall have a cover with no visible gaps in place at all times except when material is being added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.
- (13) Minimization of major paint repair.

Compliance with sections (a) through (e) of this Prevention of Significant Deterioration BACT condition and Condition D.6.2 of this permit shall satisfy 326 IAC 2-2 (PSD), 326 IAC 2-4.1-1 (New Source Toxic Control) and 326 IAC 8-1-6 (General VOC Reduction Requirements).

D.5.2 Volatile Organic Compound (VOC) [326 IAC 8-2-9] [326 IAC 8-2-2]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volume weighted average volatile organic compound (VOC) content of coating applied to the metal parts of the H2 shall be limited as follows:

Type of Coating	VOC Emissions Limit (pounds per gallon of coatings less water)
Clear Coatings	4.3
Forced Warm Air Dried Coatings	3.5
Air Dried Coatings	3.5
Extreme Performance Coatings	3.5
All Other Coating	3.0

- (b) Pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations), the volume weighted average volatile organic compound (VOC) content of coating applied only to automobiles and light duty trucks (vehicles weighing 8,500 pounds or less) shall be limited as follows:

Type of Coating	VOC Emissions Limit (pounds per gallon of coatings less water)
Prime application, flash off area and oven operations	1.9
Topcoat application, flash off area and oven operations	2.8
Final repair application, flash off area and oven operations	4.8

- (c) The VOC input usage from the off-line Spot and three (3) Final Repair Stations, identified as No. 1, No. 2, and No. 3 (Category #8) shall be limited to a total of less than 15 pounds per day (lbs/day). Compliance with this limit shall make 326 IAC 8-2-9 (Miscellaneous Metal Coating) and 326 IAC 8-2-2 (Automobile and light duty truck coating operations) not applicable. This limit shall also satisfy the PSD BACT limit.
- (d) When using coatings not compliant with 326 IAC 8-2-2 and 326 IAC 8-2-9, the Permittee shall comply with the following:
- (1) Pursuant to 326 IAC 8-1-2(b), the Primer/Topcoat System VOC emissions shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon of coating solids, allowed in Conditions D.5.1(c), D.5.2(a), and D.5.2(b).

This equivalency was determined by the following equation:

$$E = L / (1 - (L/D))$$

Where

- L= Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating;
- D= Density of VOC in coating in pounds per gallon of VOC;
- E= Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

A solvent density of 7.36 pounds of VOC per gallon of coating shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit contained in this article.

Actual solvent density shall be used to determine compliance of the surface coating operation using the compliance methods in 326 IAC 8-1-2 (a).

- (2) The pounds of VOC per gallon of coating solids shall be limited to less than E determined in D.5.2(d)(1) above.
- (3) Pursuant to 326 IAC 8-1-2(c), the overall efficiency of the thermal oxidizer shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = \frac{V - E}{V} \times 100$$

Where:

V = The actual VOC content of the non-compliant coating or, if multiple non-compliant coatings are used, the daily weighted average VOC content of all non-compliant coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids as applied.

E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

O = Equivalent overall efficiency of the capture system and control device as a percentage.

The overall efficiency of the thermal oxidizer shall be equal to or greater than 95%.

**D.5.3 Volatile Organic Compounds [326 IAC 8-1-2(a)] [326 IAC 8-2-2]**

Pursuant to 326 IAC 8-1-2(a), the Primer/Topcoat System combined VOC emission limitations specified under 326 IAC 8-2-9 in Condition D.5.2 shall be achieved through one (1) or any combination of the following:

- (a) Thermal or catalytic incineration;
- (b) Water borne coatings;
- (c) Higher solids (low solvent) coatings, including powder, ultraviolet, and electron beam coatings; or
- (d) Equivalent emissions limitations based on actual transfer efficiency higher than specified baseline transfer efficiency as follows:

Miscellaneous Metal Coating	Equivalent Emission Limit	
	kg/liter Solids Deposited	Lbs/gal Solids Deposited
Clear Coatings	2.08	17.3
Air Dried up to 90°C	1.34	11.2
Extreme Performance Coatings	1.34	11.2
All Other Coatings and Coating Systems	1.01	8.4

Compliance with the equivalent emissions limits in this condition shall be determined according to the following equation:

$$E = \frac{L}{\left[ \left( 1 - \left( \frac{L}{D} \right) \right) \times (T) \right]}$$

Where:

E = Actual emissions in pounds of VOC per gallon of coating solids deposited.

L = Actual VOC content in pounds of VOC per gallon of coating, as applied, excluding water and non-photochemically reactive hydrocarbons.

D = Actual density of the VOC in the coating in pounds per gallon of VOC.

T = Actual measured transfer efficiency.

**D.5.4 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]**

Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of the coating operations during cleanup or color changes shall be directed into containers. Said containers

shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

**D.5.5 Particulate Emission Limitation, Work Practices and Control Technologies [326 IAC 6-3-2(d)]**

---

- (a) Pursuant to 326 IAC 6-3-2(d), particulate from the Final and Spot Repair System shall be controlled by a dry particulate filter and the Permittee shall operate the control device in accordance with manufacturer's specifications.
- (b) Pursuant to 326 IAC 6-3-2(d), particulate from the Primer/Topcoat System shall be controlled by a water wash and the Permittee shall operate the control device in accordance with manufacturer's specifications.

**D.5.6 Gasoline Dispensing Facilities [326 IAC 8-4-6]**

---

- (a) Pursuant to 326 IAC 8-4-6(b) - No owner or operator shall allow the transfer of gasoline between any transport and any storage tank unless such tank is equipped with the following:
  - (1) A submerge fill pipe.
  - (2) Either a pressure relief valve set to release at no less than seven-tenths (0.7) pounds per square inch or an orifice of five-tenths (0.5) inch in diameter.
  - (3) A vapor balance system connected between the tank and the transport, operating according to manufacturer's specifications.
- (b) It shall be the responsibility of the owner or operator of the transport to make certain that the vapor balance system is connected between the transport and the storage tank and is operating according to the manufacturer's specifications.
- (c) The Permittee shall install submerged fill pipes and pressure relief valves on the gasoline storage tank and shall employ a vapor balancing system for gasoline tank truck unloading activities.

**D.5.7 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

---

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

**Compliance Determination Requirements**

**D.5.8 Volatile Organic Compounds (VOC)[326 IAC 8-1-2] [326 IAC 8-1-4]**

---

Compliance with the VOC content contained in Conditions D.5.1(c), D.5.2, and D.5.3 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.

**D.5.9 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11] [326 IAC 2-2]**

---

- (a) Compliance stack tests shall be performed on the Regenerative Thermal Oxidizer (RTO) to determine the operating temperature that will achieve the following destruction efficiency and to determine the capture system efficiency for the coating systems to verify compliance with the VOC limits in Conditions D.5.1 and D.5.2:

Facility	Destruction Efficiency
E-Coat/ELPO	95%
Primer/Topcoat System	95%

- (b) The Compliance stack tests for the Primer/Topcoat System in (a) of this condition shall be made utilizing Method 25 for destruction efficiency, and or other methods as approved by the Commissioner for capture efficiency. This test shall be repeated at least once every two and a half (2.5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.5.10 Volatile Organic Compounds (VOC)

- (a) Compliance with the VOC content and usage limitations contained in Conditions D.5.1, D.5.2, and D.5.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- (b) Compliance with the PSD BACT limit in D.5.1(c) shall be determined using daily volume weighted average of the total mass of VOC emitted per volume of coating solids applied daily and shall be determined using the following equation:

$$G = \frac{\sum_{i=1}^{i=n} (L_{ci} \times D_{ci} \times W_{ci} \times (1 - CE))}{\sum_{i=1}^{i=n} (L_{ci} \times V_{si} \times T_{ci})}$$

where:

- G = volume weighted average mass of VOC per volume of applied solids (pounds per gallon),  
 L<sub>ci</sub> = volume of each applied coating (i) consumed, as received (gallons),  
 D<sub>ci</sub> = density of each applied coating (i) as received  
 W<sub>oi</sub> = proportion of each applied VOC by weight in each coating (i), as received (pounds VOC / pounds coating),  
 CE = overall control efficiency  
 V<sub>si</sub> = proportion of each applied solids by volume in each coating (i) as received (gallons solids / gallon coating),  
 T<sub>ci</sub> = transfer efficiency for each applied coating (i),

- (c) Pursuant to 326 IAC 8-1-2(7), compliance with the VOC content limit in Condition D.5.2 for coatings applied through spray application system shall be determined using a daily volume weighted average of the coatings applied.
- (d) Pursuant to 326 IAC 8-1-2(9), compliance with the VOC content limit in Condition D.5.2 for coatings applied through dip coating or electrodeposition may be determined using a monthly volume weighted average of the coatings applied.

This volume weighted average in (c) and (d) of this condition shall be determined using the following equation:

$$VOC_A = \frac{\sum_i (W_{oi} D_{ci} Q_i) + \sum_j (W_{oj} D_{dj} Q_j)}{\sum_i (V_{ni} Q_i)}$$

Where

VOC<sub>A</sub> = The as-applied, VOC content in pound VOC per gallon (lb VOC/gal) of coating solids for a dip coating or flow coating, calculated on a thirty (30) day rolling average basis.

- Woi = Percent VOC by weight of each as supplied coating (i) added to the dip coating or flow coating process, expressed as a decimal fraction (that is 55% = 0.55).
- Dci = Density of each as supplied coating (i) added to the dip coating or flow coating process, in pounds per gallon.
- Qi = Quantity of each as supplied coating (i) added to the dip coating or flow coating process, in gallons.
- Vni = Percent solids by volume of each as supplied coating (i) added to the dip coating or flow coating process, expressed as a decimal fraction.
- Woj = Percent VOC by weight of each thinner (j) added to the dip coating or flow coating process, expressed as a decimal fraction.
- Ddj = Density of each thinner (j) added to the dip coating or flow coating process, in pounds per gallon.
- Qj = Quantity of each thinner (j) added to the dip coating or flow coating process, in gallons.

#### D.5.11 Thermal Oxidizer Temperature [326 IAC 2-2]

---

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. For the purposes of the condition, continuous shall mean no less than once per minute. The output of this system shall be recorded as a three (3) hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the three (3) hourly average temperature of 1350°F.
- (b) The Permittee shall determine the three (3) hourly average temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.5.1, as approved by IDEM.
- (c) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the three (3) hourly average temperature as observed during the compliant stack test.

#### D.5.12 Parametric Monitoring

---

- (a) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with limits in Condition D.5.1, as approved by IDEM.
- (b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in most recent compliant stack test.

#### D.5.13 Volatile Organic Compounds [326 IAC 8-1-2] [326 IAC 2-2]

---

Pursuant to 8-1-2(a) and to comply with Condition D.5.1, the Regenerative Thermal Oxidizer (RTO) shall be in operation at all times when the E-Coat/ELPO System and the automatic zones for the Primer/Topcoat System are in operation or a non-compliant coating is used.

### Compliance Monitoring Requirements

#### D.5.14 Monitoring

---

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the Final and Spot Repair System while one or more of the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

- (b) Daily inspections shall be performed to verify that the water level of the water pans meet the manufacturer's recommended level. To monitor the performance of the water pans, the water level of the pans shall be maintained weekly at a level where surface agitation indicates impact of the air flow. Water shall be kept free of solids and floating material that reduces the capture efficiency of the water pan. To monitor the performance of the baffles, weekly inspections of the baffle panels shall be conducted to verify placement and configuration meet recommendations of the manufacturer. In addition, weekly observations shall be made of the overspray from the Primer/Topcoat System while one or more of the booths are in operation. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (c) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. Section C - Response to Excursions or Exceedances for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

## Record Keeping and Reporting Requirements

### D.5.15 Record Keeping Requirements

---

- (a) To document compliance with Conditions D.5.1(c), D.5.2, and D.5.3, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be sufficient to establish compliance with the VOC usage, vehicle production limits, and the VOC emission limits established in Conditions D.5.1(c), D.5.2, and D.5.3.
  - (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (2) A log of the dates of use.
  - (3) The VOC usage each month from the Final and Spot Repair.
  - (4) The cleanup solvent usage for each month.
  - (5) The total VOC usage for each month.
  - (6) The weight of VOCs emitted for each compliance period.
  - (7) Vehicle production for each day and month.
- (b) To document compliance with Conditions D.5.1(c) and D.5.2(b), the Permittee shall maintain records in accordance with (1) through (11) below. Records maintained for (1) through (11) shall be sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.5.1(c) and D.5.2(b).
  - (1) The amount and VOC content of each coating material and solvent used monthly for coatings sprayed and monthly for coatings applied by the dip tank, purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

- (2) A log of the dates of use.
  - (3) The volume weighted VOC content of the coatings applied through spray application for each month.
  - (4) The volume weighted VOC content of the coatings applied from the dip tank for each month.
  - (5) The cleanup solvent/thinners usage for each month from spray application.
  - (6) The cleanup solvent/thinners usage for each month from the dip tank.
  - (7) The total VOC usage for each month from spray application.
  - (8) The total VOC usage for each month from the dip tank.
  - (9) The calculated daily volume weighted average VOC content per gallon of the coatings less water as applied from spray application.
  - (10) The calculated VOC content, as applied in pounds VOC per gallon of coating solids on a 30-day rolling average from the dip tank.
  - (11) The calculated monthly volume weighted average emissions in pounds per gallon coating solids for coatings applied through spray application systems.
- (c) To document compliance with Condition D.5.13, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections.
- (d) To document compliance with Condition D.5.13, the Permittee shall maintain a log of weekly overspray observations, weekly observations of the water level in the pans, daily and monthly inspections.
- (e) To document compliance with Condition D.5.9, the Permittee shall maintain continuous temperature records (on a three (3) hour average basis) for the thermal oxidizer and the three (3) hour average temperature used to demonstrate compliance during the most recent compliant stack test.
- (f) To document compliance with Condition D.5.10, the Permittee shall maintain daily records of the duct pressure or fan amperage.
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.5.16 Reporting Requirements

---

A monthly summary of the information to document compliance with Conditions D.5.1 and D.5.2(c) shall be submitted quarterly to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

#### Insignificant Activities

- (c) Insignificant Activities in the H1 Plant [326 IAC 2-2]:
- (1) One (1) diesel horizontal underground storage tank, with a capacity of 12,000 gallons.
  - (2) One (1) automatic transmission fluid horizontal underground storage tank, with a capacity of 10,000 gallons.
  - (3) One (1) antifreeze horizontal underground storage tank, with a capacity of 10,000 gallons.
  - (4) One (1) gasoline rectangular above ground storage tank, with a capacity of 1,500 gallons.
  - (5) One (1) diesel fuel rectangular above ground storage tank, with a capacity of 1,500 gallons.
- (d) General List of Insignificant Activities
- (1) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons [326 IAC 2-2].
  - (2) A petroleum fuel, other than gasoline dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month [326 IAC 2-2].
  - (3) The following VOC and HAP storage containers [326 IAC 2-2]:
    - Storage tanks with capacity less than 1,000 gallons and annual throughput less than 12,000 gallons.
    - Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids.
  - (5) Cleaners and solvents characterized as follows [326 IAC 2-2]:
    - Having a vapor pressure equal to or less than 2 kPa; 15 mmHg, or 0.3 psi measured at 38 degrees C (100 °F) or
    - Having a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20 °C (68 °F).
    - The use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
  - (6) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].
  - (7) Emergency generators as follows: Gasoline generators not exceeding 110 horsepower, diesel generators not exceeding 1,600 horsepower, natural gas turbines or reciprocating engines not exceeding 16,000 horsepower [326 IAC 6-2-4].

(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.6.1 Particulate Matter (PM) [326 IAC 6-2-4]**

---

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), particulate emissions from all the boilers with heat input rating of less than ten (10) MMBtu/hr each shall be limited to 0.6 pounds per MMBtu (lb/MMBtu) heat input.

### **D.6.2 PSD BACT Limit [326 IAC 2-2]**

---

Pursuant to 326 IAC 2-2 (PSD) and the BACT determination in SSM 141-11673-00031, issued on June 28, 2000, the insignificant activities shall be as follows:

- (a) Gasoline fuel transfer and dispensing operation shall not exceed 1,300 gallons per day.
- (b) The petroleum fuel dispensing facility, shall not exceed a storage capacity greater 10,500 gallons, and shall not dispense fuel greater than 230,000 gallons per month.
- (c) Storage tanks with capacity less than 1,000 gallons shall have annual throughput less than 12,000 gallons. This shall include vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids.
- (d) Cleaners and solvents used in this section shall have a vapor pressure equal to or less than 2 kPa; 15 mmHg, or 0.3 psi measured at 38 degrees C (100 °F) or shall have a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20 °C (68° F).

The use of which for all cleaners and solvents combined shall not exceed 145 gallons per 12 months.

- (e) Compliance with this condition and condition D.5.1 of this permit shall satisfy 326 IAC 2-2, the Prevention of Significant Deterioration.

## SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) Surface coating facilities in the H1 Plant. Under 40 CFR 63, Subpart M, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M]:
- (1) One (1) spraying and dipping operation, constructed in 1983, identified as 001, for the prime coating of small metal parts, with PM overspray from the spraying controlled by water wash, and exhausting at stacks S1 and S2.
  - (2) One (1) spraying and dipping operation, constructed in 1983, identified as 002, for the topcoating of small metal parts, with PM overspray from the spraying controlled by water wash, and exhausting at stacks S3 and S4.
  - (3) One (1) spray coating operation, constructed in 1983, identified as 003, for the prime coating of metal vehicle bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S5, S6, S7 and S8.
  - (4) One (1) spray coating operation, constructed in 1983, identified as 004, for the topcoating of metal vehicle bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S9, S10, S11 and S12.
  - (5) One (1) spray coating operation, constructed in 1983, identified as 005, for the topcoating of metal vehicle chassis, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S13, and S14.
  - (6) One (1) spray coating operation, constructed in 1983, identified as 006, for the camouflage painting of metal vehicle bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S15, S16, S17 and S18.
  - (7) One (1) touch-up/repair spray coating operation, constructed in 1983, identified as 007, for the repair of metal vehicle body surfaces which may have been damaged in assembly or which may have defects in the quality of surface coating, or surface coating of parts for distribution as service (replacement) parts to be assembled in the field, with PM overspray controlled by dry filters, and exhausting to stack S19.
  - (8) One (1) Zinc Rich Primer Dip Booth, located adjacent to Small Parts Prime Booth 001 of the main H1 plant. This booth was permitted to construct in 2003.
  - (9) One (1) surface coating spray booth, identified as Booth 001b equipped with spray cup guns with compressed air, with PM overspray controlled by dry filters. This operation is used for repair painting metal parts.
  - (10) One (1) service parts booth, permitted to construct in 2007, with a spray system and a dip tank, using dry filters to control the PM overspray emissions from the spray system.
  - (11) Metal parts blasting room, constructed in 2007, capable of blasting 2.5 tons of parts per hour, using 176,250 pounds of steel and plastic abrasives per hour, with two (2) cartridge filters used to control the PM and PM10 emissions.
- (b) Surface coating facilities in the Armour Building. Under 40 CFR 63, Subpart M, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M]:

- (1) One (1) spray coating operation, constructed in 1991, identified as 008, for the prime coating and topcoating of metal vehicle bodies, with a maximum capacity of 2 units per hour, with PM overspray controlled by dry filters, and exhausting to stacks S21, S22, S23, S24, S25, S26 and S27.
  - (2) One (1) spray coating operation, constructed in 1993, identified as 009, for accent and trim painting of metal commercial vehicle bodies, with a maximum capacity of 2 units per hour, with PM overspray controlled by dry filters, and exhausting to stacks S28 and S29.
- (d) H2 Plant Vehicle Production (Automobiles, Light Duty Trucks, and Heavier Vehicles):
- (4) Painting Operations:
    - (A) Electrodeposition dip prime process (E-Coat/ELPO) (Category #3) – Phosphate cleaning consists of the following process units: spray cleaner, immersion cleaner, spray rinse, immersion conditioner, zinc phosphate immersion cleaner, spray rinse, immersion R.O. rinse, passivation, and R.O. spray rinse.

The electrodeposition dip prime coating system (E-Coat/ELPO), which follows the phosphate cleaning, consists of the following process units: e-coat dip, ultrafilter recirculated rinse, ultrafilter dip rinse, recirculated ultrafilter spray, R.O. recirculated spray, e-coat oven (zones 1 to 5) and e-coat cooler (oven exit).

The VOC and HAPs emissions from the Electrodeposition dip prime process (E-Coat/ELPO), and the E-Coat/ELPO drying oven are controlled by a Regenerative Thermal Oxidizer. The electrodeposition dip prime process was constructed in 2000-2001. Under 40 CFR 63, Subpart M MMM and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M MMM][40 CFR 63, Subpart IIII].
    - (B) Primer System (Category #4) – Consists of the following process units: e-coat scuff, interior sealing, exterior sealing, sealer inspection, tack-off booth, manual spray booth, robot spray booth, observation booth, common flash off enclosure, prime oven (zones 1 to 3) and prime cooler (oven exit). The primer system was constructed in 2000-2001. Under 40 CFR 63, Subpart M MMM and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M MMM][40 CFR 63, Subpart IIII].

The VOC and HAPs emissions from the Primer robot spray booth, observation booth, common flash off enclosure, prime oven and prime cooler (oven exit) are controlled by a Regenerative Thermal Oxidizer. The PM overspray is controlled by a water wash.
    - (C) Topcoat System (Category #5) - Consists of the following process units: prime scuff and prep booth, topcoat blow off booth, basecoat manual spray booth, basecoat robot spray booth, basecoat observation booth, flash off zone, clearcoat manual spray booth, clearcoat robot spray booth, clearcoat observation booth, common flash off enclosure, topcoat oven (zones 1 to 3) and topcoat cooler (oven exit). The topcoat system was constructed in 2000-2001. Under 40 CFR 63, Subpart M MMM and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M MMM][40 CFR 63, Subpart IIII].

The VOC and HAPs emissions from the basecoat robot spray booth, basecoat observation booth, flash off zone, clearcoat robot spray booth, clearcoat

observation booth, common flash off enclosure, topcoat oven and topcoat cooler (oven exit) are controlled by a Regenerative Thermal Oxidizer. The PM overspray is controlled by a water wash.

- (E) Final and Spot Repair (Category #8) including off-line spot and three (3) final repair stations, identified as No.1, No.2, and No.3. The PM overspray from this system is controlled by dry filters. The final and spot repair process was constructed in 2000-2001. Under 40 CFR 63, Subpart M MMMM and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M MMMM][40 CFR 63, Subpart IIII].

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

E.1.1 General Provisions Relating to NESHAP M MMMM [326 IAC 20-1] [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.3101, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions of 40 CFR Part 63, Subpart M MMMM in accordance with schedule in 40 CFR 63 Subpart M MMMM.

E.1.2 Surface Coating of Miscellaneous Metal Parts and Products NESHAP [40 CFR Part 63, Subpart M MMMM]

The Permittee which engages in coating metal parts and products shall comply with the provisions of 40 CFR Part 63, Subpart M MMMM as follows:

- (1) 40 CFR 63.3880
- (2) 40 CFR 63.3881 (a)(1), (a)(2), (b)
- (3) 40 CFR 63.3882
- (4) 40 CFR 63.3883 (b), (d)
- (5) 40 CFR 63.3890 (b)(1)
- (6) 40 CFR 63.3891 (b)
- (7) 40 CFR 63.3892 (a)
- (8) 40 CFR 63.3893 (a), (c)
- (9) 40 CFR 63.3900 (a)(1), (b)
- (10) 40 CFR 63.3901
- (11) 40 CFR 63.3910 (a), (b), (c)(1) through (c)(7), (c)(8)(ii), (c)(10)
- (12) 40 CFR 63.3920 (a)(1) through (a)(4), (a)(6)
- (13) 40 CFR 63.3930 (a), (b), (c)(1), (c)(3), (d), (e), (f), (g), (h), (j)
- (14) 40 CFR 63.3931
- (15) 40 CFR 63.3950
- (16) 40 CFR 63.3951
- (17) 40 CFR 63.3952
- (18) 40 CFR 63.3980
- (19) 40 CFR 63.3981

E.1.3 One-time Deadline for Reporting, Semi-annual Reports [40 CFR Part 63, Subpart M MMMM]

The Permittee must submit semi-annual compliance reports by July 30, 2008, and every January 30 and July 30 thereafter.

## SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

(d) H2 Plant Vehicle Production (Automobiles, Light Duty Trucks, and Heavier Vehicles):

(4) Painting Operations:

- (A) Electrodeposition dip prime process (E-Coat/ELPO) (Category #3) – Phosphate cleaning consists of the following process units: spray cleaner, immersion cleaner, spray rinse, immersion conditioner, zinc phosphate immersion cleaner, spray rinse, immersion R.O. rinse, passivation, and R.O. spray rinse.

The electrodeposition dip prime coating system (E-Coat/ELPO), which follows the phosphate cleaning, consists of the following process units: e-coat dip, ultrafilter recirculated rinse, ultrafilter dip rinse, recirculated ultrafilter spray, R.O. recirculated spray, e-coat oven (zones 1 to 5) and e-coat cooler (oven exit).

The VOC and HAPs emissions from the Electrodeposition dip prime process (E-Coat/ELPO), and the E-Coat/ELPO drying oven are controlled by a Regenerative Thermal Oxidizer. The electrodeposition dip prime process was constructed in 2000-2001. Under 40 CFR 63, Subpart Mmmm and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart Mmmm][40 CFR 63, Subpart IIII].

- (B) Primer System (Category #4) – Consists of the following process units: e-coat scuff, interior sealing, exterior sealing, sealer inspection, tack-off booth, manual spray booth, robot spray booth, observation booth, common flash off enclosure, prime oven (zones 1 to 3) and prime cooler (oven exit). The primer system was constructed in 2000-2001. Under 40 CFR 63, Subpart Mmmm and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart Mmmm][40 CFR 63, Subpart IIII].

The VOC and HAPs emissions from the Primer robot spray booth, observation booth, common flash off enclosure, prime oven and prime cooler (oven exit) are controlled by a Regenerative Thermal Oxidizer. The PM overspray is controlled by a water wash.

- (C) Topcoat System (Category #5) - Consists of the following process units: prime scuff and prep booth, topcoat blow off booth, basecoat manual spray booth, basecoat robot spray booth, basecoat observation booth, flash off zone, clearcoat manual spray booth, clearcoat robot spray booth, clearcoat observation booth, common flash off enclosure, topcoat oven (zones 1 to 3) and topcoat cooler (oven exit). The topcoat system was constructed in 2000-2001. Under 40 CFR 63, Subpart Mmmm and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart Mmmm][40 CFR 63, Subpart IIII].

The VOC and HAPs emissions from the basecoat robot spray booth, basecoat observation booth, flash off zone, clearcoat robot spray booth, clearcoat observation booth, common flash off enclosure, topcoat oven and topcoat cooler (oven exit) are controlled by a Regenerative Thermal Oxidizer. The PM overspray is controlled by a water wash.

- (E) Final and Spot Repair (Category #8) including off-line spot and three (3) final repair stations, identified as No.1, No.2, and No.3. The PM overspray from this system is controlled by dry filters. The final and spot repair process was

constructed in 2000-2001. Under 40 CFR 63, Subpart Mmmm and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart Mmmm][40 CFR 63, Subpart IIII].

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

**E.2.1 General Provisions Relating to NESHAP IIII [326 IAC 20-1] [40 CFR Part 63, Subpart A]**

Pursuant to 40 CFR 63.3101, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 2 of 40 CFR Part 63, Subpart IIII in accordance with schedule in 40 CFR 63 Subpart IIII.

**E.2.2 Automobiles and Light-Duty Trucks NESHAP [40 CFR Part 63, Subpart IIII]**

The Permittee which engages in automobiles and light duty trucks production shall comply with the provisions of 40 CFR Part 63, Subpart IIII, as follows:

- (1) 40 CFR 63.3080
- (2) 40 CFR 63.3081 (a), (b), (c)
- (3) 40 CFR 63.3082 (a), (b), (c), (d), (e), (g)
- (4) 40 CFR 63.3083 (b), (d)
- (5) 40 CFR 63.3091
- (6) 40 CFR 63.3092
- (7) 40 CFR 63.3093
- (8) 40 CFR 63.3094
- (9) 40 CFR 63.3100
- (10) 40 CFR 63.3101
- (11) 40 CFR 63.3110
- (12) 40 CFR 63.3120
- (13) 40 CFR 63.3130
- (14) 40 CFR 63.3131
- (15) 40 CFR 63.3150
- (16) 40 CFR 63.3151
- (17) 40 CFR 63.3152
- (18) 40 CFR 63.3160 (b), (c)
- (19) 40 CFR 63.3161
- (20) 40 CFR 63.3163
- (21) 40 CFR 63.3164
- (22) 40 CFR 63.3165
- (23) 40 CFR 63.3166
- (24) 40 CFR 63.3167 (a), (f)
- (25) 40 CFR 63.3168 (a), (b), (c), (g)
- (26) 40 CFR 63.3170 (b)
- (27) 40 CFR 63.3171
- (28) 40 CFR 63.3173
- (29) 40 CFR 63.3175
- (30) 40 CFR 63.3176
- (31) Applicable portions of Table 1, Table 2, Table 3, and Table 4
- (31) Appendix A

**E.2.3 One-Time Deadlines Relating to Automobiles and Light-Duty Surface Coating Requirements [40 CFR Part 63, Subpart IIII]**

The Permittee shall comply with the following requirements by the dates listed:

Requirement	Rule Cite	Deadline
Submit Initial Notification	63.3110(b)	Upon start-up of automobile and light duty truck coating operation
Compliance Date	63.3083(a)	upon start-up

Conduct Initial Compliance Demonstrations	63.3150, 63.3160(a), and 63.3170(a)	The initial compliance demonstration must be completed for the initial compliance period, which begins on the day after the compliance date and ends on the last day of the twelfth full month after the compliance date.
Submit Notification of Intent to Conduct a Performance Test	63.7(b) and 63.9(e)	within 60 days before the performance test is scheduled to begin
Conduct Performance Test	63.3160(a)(1) and 63.3170(a)(1)	no later than 180 days after the compliance date
Results of Initial Performance Tests	63.3120(b)	within 60 days after completing the performance test
Notification of Compliance Status	63.3110(c)	no later than 30 days following the end of the initial compliance period
First Semiannual Compliance Report	63.3120(a)(1)	The first January 31 or July 31, after the end of the initial compliance period.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: AM General LLC  
Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Part 70 Permit No.: T141-17644-00031

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: 317-233-0178  
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: AM General LLC  
Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Part 70 Permit No.: T141-17644-00031

**This form consists of 2 pages**

**Page 1 of 2**

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

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

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

Phone: \_\_\_\_\_

A certification is not required for this report.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

### Part 70 Usage Report (Submit Report Quarterly)

Source Name: AM General LLC  
 Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
 Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
 Part 70 Permit No.: T141-17644-00031  
 Facility: Automobiles, light duty trucks, and H2 vehicles production plant  
 Parameter: Vehicle Production  
 Limit: Daily maximum production shall not exceed 364 vehicles.

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Day		Day	
1		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16			

- No deviation occurred in this month.
- Deviation/s occurred in this month.  
 Deviation has been reported on:

Submitted by: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

### Part 70 Usage Report

(Submit Report Quarterly)

Source Name: AM General LLC  
 Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
 Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
 Part 70 Permit No.: T141-17644-00031  
 Facility: Surface coating facilities (Automobiles, light duty trucks, and H2 vehicles)  
 Parameter: Pounds of VOC/Gallon Applied Coating Solids (lbs/galc)  
 Limit:

Facilities/Operations	Controlled VOC Limit (Pounds of VOC/Gallon Applied Coating Solids)
E-Coat/ELPO System	0.04
Primer /Topcoat System	4.5

The VOC limit in pounds of VOC/gallon applied coating solids shall be determined on a daily-volume-weighted average and actual transfer efficiencies.

Month: \_\_\_\_\_ Year: \_\_\_\_\_

	Day	
1	17	
2	18	
3	19	
4	20	
5	21	
6	22	
7	23	
8	24	
9	25	
10	26	
11	27	
12	28	
13	29	
14	30	
15	31	
16		

- No deviation occurred in this month.
- Deviation/s occurred in this month.  
 Deviation has been reported on:

Submitted by: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

## Part 70 Usage Report (Submit Report Quarterly)

Source Name: AM General LLC  
Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Part 70 Permit No.: T141-17644-00031  
Facility: Off-line Spot and three (3) Final Repair Stations, identified as No. 1, No. 2, and No. 3 (Category #8)  
Parameter: VOC input  
Limit: The VOC input usage from the Spot and Final Repair operations shall be limited to less than 15 pounds per day (lbs/day). This limit shall be based on weighted average.

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Day	Day
1	17
2	18
3	19
4	20
5	21
6	22
7	23
8	24
9	25
10	26
11	27
12	28
13	29
14	30
15	31
16	

No deviation occurred in this month.

Deviation/s occurred in this month.  
Deviation has been reported on:

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

## Part 70 Quarterly Report

Source Name: AM General LLC  
Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Part 70 Permit No.: T141-17644-00031  
Facility: Zinc Rich Primer Dip Coating Booth and associated clean-up activities  
Parameter: VOC input  
Limit: The total VOC input such that the potential to emit does not exceed 25 tons per 12-consecutive month period, with compliance determined on a monthly basis.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on:

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

## Part 70 Quarterly Report

Source Name: AM General LLC  
Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Part 70 Permit No.: T141-17644-00031  
Facility: Zinc Rich Primer Dip Coating Booth and associated clean-up activities  
Parameter: Single HAP input  
Limit: The single HAP input such that the potential to emit does not exceed 10 tons per 12-consecutive month period, with compliance determined on a monthly basis.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on:

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

### Part 70 Quarterly Report

Source Name: AM General LLC  
Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Part 70 Permit No.: T141-17644-00031  
Facility: Coating Booth 001b and associated clean-up activities  
Parameter: VOC input  
Limit: The total VOC input such that the potential to emit does not exceed 14 tons per 12-consecutive month period, with compliance determined on a monthly basis.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on:

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

## Part 70 Quarterly Report

Source Name: AM General LLC  
Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Part 70 Permit No.: T141-17644-00031  
Facility: Coating Booth 001b and associated clean-up activities  
Parameter: Single HAP input  
Limit: The single HAP input such that the potential to emit does not exceed 10 tons per 12-consecutive month period, with compliance determined on a monthly basis.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on:

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

## Part 70 Quarterly Report

Source Name: AM General LLC  
Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Part 70 Permit No.: T141-17644-00031  
Facility: Coating Booth 001b and associated clean-up activities  
Parameter: Total combined HAP input  
Limit: The total combined HAP input such that the potential to emit does not exceed 25 tons per 12-consecutive month period, with compliance determined on a monthly basis.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on:

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

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

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

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

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

## Part 70 Quarterly Report

Source Name: AM General LLC  
Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Part 70 Permit No.: T141-17644-00031  
Facility: Coating Booths 001-007, Insignificant Degreasers and their associated clean-up activities  
Parameter: VOC emissions  
Limit: The total VOC emissions shall be limited such that the potential to emit does not exceed 377 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.  
Deviation has been reported on:

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

### Part 70 Quarterly Report

Source Name: AM General LLC  
 Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
 Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
 Part 70 Permit No.: T141-17644-00031  
 Facility: Vehicle (Automobiles, light duty trucks, and H2 vehicles) production  
 Parameter: Production  
 Limit: 86,000 vehicles per 12-consecutive month period, calculated on a monthly basis.

The volatile organic material (VOC) usages, and natural gas usages from the automobiles, light duty trucks, and H2 vehicles plant shall be limited such that the summation of the VOC emissions from all facilities at this plant shall not exceed 260 tons per 12-month period, rolled on a monthly basis.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Note: This Report shall be submitted with a detailed VOC emissions calculations (spreadsheet) showing all the VOC usages and natural gas usages.

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
 Deviation has been reported on:

Submitted by: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

## Part 70 Quarterly Report

Source Name: AM General LLC  
Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Part 70 Permit No.: T141-17644-00031  
Facility: Material usages, and natural gas usages from the automobiles, light duty trucks, and H2 vehicles plant  
Parameter: VOC usages  
Limit: The volatile organic material (VOC) usages shall be limited such that the summation of the VOC emissions from all facilities at this plant shall not exceed 260 tons per 12-month period, rolled on a monthly basis.

QUARTER :

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

Note: This Report shall be submitted with a detailed VOC emissions calculations (spreadsheet) showing all the VOC usages and natural gas usages.

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.  
Deviation has been reported on:

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

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

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

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

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION  
PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: AM General LLC  
Source Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Mailing Address: 13200 McKinley Hwy, Mishawaka, Indiana 46545  
Part 70 Permit No.: T141-17644-00031

**Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_**

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<p><input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p><b>Permit Requirement</b> (specify permit condition #)</p>	
<p><b>Date of Deviation:</b></p>	<p><b>Duration of Deviation:</b></p>
<p><b>Number of Deviations:</b></p>	
<p><b>Probable Cause of Deviation:</b></p>	
<p><b>Response Steps Taken:</b></p>	
<p><b>Permit Requirement</b> (specify permit condition #)</p>	
<p><b>Date of Deviation:</b></p>	<p><b>Duration of Deviation:</b></p>
<p><b>Number of Deviations:</b></p>	
<p><b>Probable Cause of Deviation:</b></p>	
<p><b>Response Steps Taken:</b></p>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed by: \_\_\_\_\_

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

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

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**PART 70 OPERATING PERMIT RENEWAL  
OFFICE OF AIR QUALITY**

**AM General LLC  
13200 McKinley Hwy  
Mishawaka, Indiana 46545**

**Attachment A**

**Title 40: Protection of Environment**

**PART 60—STANDARDS OF PERFORMANCE FOR NEW  
STATIONARY SOURCES**

**Subpart Dc—Standards of Performance for Small Industrial-  
Commercial-Institutional Steam Generating Units**

**T141-17644-00031**

## **Title 40: Protection of Environment**

### **PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES**

#### **Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units**

**Source:** 72 FR 32759, June 13, 2007, unless otherwise noted.

##### **§ 60.40c Applicability and delegation of authority.**

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO<sub>2</sub>) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under §60.14.

(e) Heat recovery steam generators that are associated with combined cycle gas turbines and meet the applicability requirements of subpart GG or KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/hr) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/hr) heat input of fossil fuel. If the heat recovery steam generator is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG or KKKK, as applicable, of this part).

(f) Any facility covered by subpart AAAA of this part is not covered by this subpart.

(g) Any facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not covered by this subpart.

##### **§ 60.41c Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

*Annual capacity factor* means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

*Coal* means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat,

including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

*Coal refuse* means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

*Cogeneration steam generating unit* means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

*Combined cycle system* means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

*Combustion research* means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit ( *i.e.* , the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

*Conventional technology* means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

*Distillate oil* means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

*Dry flue gas desulfurization technology* means a SO<sub>2</sub>control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

*Duct burner* means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

*Emerging technology* means any SO<sub>2</sub>control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

*Federally enforceable* means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 51.24.

*Fluidized bed combustion technology* means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

*Fuel pretreatment* means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

*Heat input* means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

*Heat transfer medium* means any material that is used to transfer heat from one point to another point.

*Maximum design heat input capacity* means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

*Natural gas* means: (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17).

*Noncontinental area* means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

*Oil* means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

*Potential sulfur dioxide emission rate* means the theoretical SO<sub>2</sub> emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

*Process heater* means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

*Residual oil* means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

*Steam generating unit* means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

*Steam generating unit operating day* means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

*Wet flue gas desulfurization technology* means an SO<sub>2</sub> control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

*Wet scrubber system* means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO<sub>2</sub>.

*Wood* means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

**§ 60.42c Standard for sulfur dioxide (SO<sub>2</sub>).**

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO<sub>2</sub> emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO<sub>2</sub> emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO<sub>2</sub> in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO<sub>2</sub> emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO<sub>2</sub> emissions limit or the 90 percent SO<sub>2</sub> reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO<sub>2</sub> emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 50 percent (0.50) of the potential SO<sub>2</sub> emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO<sub>2</sub> reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/hr) or less.

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area.

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 215 ng/J (0.50 lb/MMBtu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of the following:

(1) The percent of potential SO<sub>2</sub> emission rate or numerical SO<sub>2</sub> emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;

(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/hr); and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

Where:

E<sub>s</sub> = SO<sub>2</sub> emission limit, expressed in ng/J or lb/MMBtu heat input;

K<sub>a</sub> = 520 ng/J (1.2 lb/MMBtu);

K<sub>b</sub> = 260 ng/J (0.60 lb/MMBtu);

K<sub>c</sub> = 215 ng/J (0.50 lb/MMBtu);

H<sub>a</sub> = Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

H<sub>b</sub> = Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H<sub>c</sub> K<sub>a</sub> H<sub>b</sub> = Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO<sub>2</sub> emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO<sub>2</sub> emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO<sub>2</sub> control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under §60.48c(f), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 MMBtu/hr).

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(3) Coal-fired facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(i) The SO<sub>2</sub> emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

#### **§ 60.43c Standard for particulate matter (PM).**

(a) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged

into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

(e)(1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.

(2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under §60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO<sub>2</sub> emissions is not subject to the PM limit in this section.

#### **§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.**

(a) Except as provided in paragraphs (g) and (h) of this section and §60.8(b), performance tests required under §60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(b) The initial performance test required under §60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO<sub>2</sub> emission limits under §60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) of this section and §60.8, compliance with the percent reduction requirements and SO<sub>2</sub> emission limits under §60.42c is based on the average percent

reduction and the average SO<sub>2</sub>emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO<sub>2</sub>emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO<sub>2</sub>emission rate (E<sub>ho</sub>) and the 30-day average SO<sub>2</sub>emission rate (E<sub>ao</sub>). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate E<sub>ao</sub>when using daily fuel sampling or Method 6B of appendix A of this part.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E<sub>ho</sub>(E<sub>ho0</sub>) is used in Equation 19–19 of Method 19 of appendix A of this part to compute the adjusted E<sub>ao</sub>(E<sub>ao0</sub>). The E<sub>ho0</sub> is computed using the following formula:

$$E_{ho0} = \frac{E_{ho} - E_w(1 - X_k)}{X_k}$$

Where:

E<sub>ho0</sub> = Adjusted E<sub>ho</sub>, ng/J (lb/MMBtu);

E<sub>ho</sub> = Hourly SO<sub>2</sub>emission rate, ng/J (lb/MMBtu);

E<sub>w</sub> = SO<sub>2</sub>concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value E<sub>w</sub>for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E<sub>w</sub>if the owner or operator elects to assume E<sub>w</sub>= 0.

X<sub>k</sub> = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(2) The owner or operator of an affected facility that qualifies under the provisions of §60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters E<sub>w</sub>or X<sub>k</sub>if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(f) Affected facilities subject to the percent reduction requirements under §60.42c(a) or (b) shall determine compliance with the SO<sub>2</sub>emission limits under §60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO<sub>2</sub>emission rate is computed using the following formula:

$$\%P_s = 100 \left( 1 - \frac{\%R_f}{100} \right) \left( 1 - \frac{\%R_e}{100} \right)$$

Where:

%P<sub>s</sub> = Potential SO<sub>2</sub>emission rate, in percent;

%R<sub>g</sub>= SO<sub>2</sub>removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

%R<sub>f</sub>= SO<sub>2</sub>removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the %P<sub>s</sub>, an adjusted %R<sub>g</sub>(%R<sub>g</sub><sub>o</sub>) is computed from E<sub>ao</sub><sub>o</sub> from paragraph (e)(1) of this section and an adjusted average SO<sub>2</sub>inlet rate (E<sub>ai</sub><sub>o</sub>) using the following formula:

$$\%R_{g,o} = 100 \left( 1 - \frac{E_{ao,o}}{E_{ai,o}} \right)$$

Where:

%R<sub>g</sub><sub>o</sub> = Adjusted %R<sub>g</sub>, in percent;

E<sub>ao</sub><sub>o</sub> = Adjusted E<sub>ao</sub>, ng/J (lb/MMBtu); and

E<sub>ai</sub><sub>o</sub> = Adjusted average SO<sub>2</sub>inlet rate, ng/J (lb/MMBtu).

(ii) To compute E<sub>ai</sub><sub>o</sub>, an adjusted hourly SO<sub>2</sub>inlet rate (E<sub>hi</sub><sub>o</sub>) is used. The E<sub>hi</sub><sub>o</sub> is computed using the following formula:

$$E_{hi,o} = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

Where:

E<sub>hi</sub><sub>o</sub> = Adjusted E<sub>hi</sub>, ng/J (lb/MMBtu);

E<sub>hi</sub> = Hourly SO<sub>2</sub>inlet rate, ng/J (lb/MMBtu);

E<sub>w</sub> = SO<sub>2</sub>concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value E<sub>w</sub> for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E<sub>w</sub> if the owner or operator elects to assume E<sub>w</sub> = 0; and

X<sub>k</sub> = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under §60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under §60.46c(d)(2).

(h) For affected facilities subject to §60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO<sub>2</sub> standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under §60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO<sub>2</sub> standards under §60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO<sub>2</sub> emissions data in calculating %P<sub>s</sub> and E<sub>h0</sub> under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under §60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating %P<sub>s</sub> or E<sub>h0</sub> pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

**§ 60.45c Compliance and performance test methods and procedures for particulate matter.**

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3 of appendix A of this part shall be used for gas analysis when applying Method 5, 5B, or 17 of appendix A of this part.

(3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is used in conjunction with a wet scrubber system. Method 17 of appendix A of this part shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:

(i) The O<sub>2</sub> or CO<sub>2</sub> measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(8) Method 9 of appendix A of this part (6-minute average of 24 observations) shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under §60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(c) In place of PM testing with EPA Reference Method 5, 5B, or 17 of appendix A of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using EPA Method 5, 5B, or 17 of appendix A of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(13) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under §60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (d)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (d)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (d)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O<sub>2</sub>(or CO<sub>2</sub>) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraph (d)(7)(i) of this section.

(i) For PM, EPA Reference Method 5, 5B, or 17 of appendix A of this part shall be used.

(ii) For O<sub>2</sub>(or CO<sub>2</sub>), EPA reference Method 3, 3A, or 3B of appendix A of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under §60.43c(e)(4) shall follow the applicable procedures under §60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/hr).

#### **§ 60.46c Emission monitoring for sulfur dioxide.**

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO<sub>2</sub>emission limits under §60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO<sub>2</sub>concentrations and either O<sub>2</sub>or CO<sub>2</sub>concentrations at the outlet of the SO<sub>2</sub>control device (or the outlet of the steam generating unit if no SO<sub>2</sub>control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under §60.42c shall measure SO<sub>2</sub>concentrations and either O<sub>2</sub>or CO<sub>2</sub>concentrations at both the inlet and outlet of the SO<sub>2</sub>control device.

(b) The 1-hour average SO<sub>2</sub>emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.42c. Each 1-hour average SO<sub>2</sub>emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under §60.13(h)(2). Hourly SO<sub>2</sub>emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities subject to the percent reduction requirements under §60.42c, the span value of the SO<sub>2</sub>CEMS at the inlet to the SO<sub>2</sub>control device shall be 125 percent of the maximum estimated hourly potential SO<sub>2</sub>emission rate of the fuel combusted, and the span value of the SO<sub>2</sub>CEMS at the outlet from the SO<sub>2</sub>control device shall be 50 percent of the maximum estimated hourly potential SO<sub>2</sub>emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of §60.42c, the span value of the SO<sub>2</sub>CEMS at the outlet from the SO<sub>2</sub>control device (or outlet of the steam generating unit if no SO<sub>2</sub>control device is used) shall be 125 percent of the maximum estimated hourly potential SO<sub>2</sub>emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO<sub>2</sub>control device (or outlet of the steam generating unit if no SO<sub>2</sub>control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO<sub>2</sub>emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO<sub>2</sub>control device (or outlet of the steam generating unit if no SO<sub>2</sub>control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO<sub>2</sub>emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according to the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO<sub>2</sub>input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO<sub>2</sub>at the inlet or outlet of the SO<sub>2</sub>control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable SO<sub>2</sub>and CO<sub>2</sub>measurement train operated at the candidate location and a second similar train operated according to the procedures in §3.2 and the applicable procedures in section 7 of Performance Specification 2 of appendix B of this part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to §60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO<sub>2</sub>standards based on fuel supplier certification, as described under §60.48c(f), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit

operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

**§ 60.47c Emission monitoring for particulate matter.**

(a) Except as provided in paragraphs (c), (d), (e), and (f) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a COMS for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system.

(b) All COMS for measuring opacity shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

(c) Affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.06 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions are not required to operate a CEMS for measuring opacity if they follow the applicable procedures under §60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS monitor instead of monitoring opacity must calibrate, maintain, and operate a CEMS, and record the output of the system, for PM emissions discharged to the atmosphere as specified in §60.45c(d). The CEMS specified in paragraph §60.45c(d) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(e) An affected facility that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO<sub>2</sub>, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS for measuring opacity. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section.

(1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in §60.58b(i)(3) of subpart Eb of this part.

(ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. At least two data points per hour must be used to calculate each 1-hour average.

(iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(f) An affected facility that burns only gaseous fuels or fuel oils that contain less than or equal to 0.5 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the appropriate delegated permitting authority is not required to operate a COMS for measuring opacity. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.

### **§ 60.48c Reporting and recordkeeping requirements.**

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO<sub>2</sub> emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of §60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

(c) The owner or operator of each coal-fired, oil-fired, or wood-fired affected facility subject to the opacity limits under §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period.

(d) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO<sub>2</sub> emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO<sub>2</sub> emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO<sub>2</sub> or diluent (O<sub>2</sub> or CO<sub>2</sub>) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier;

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c; and

(iii) The sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO<sub>2</sub> standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO<sub>2</sub> standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

(h) The owner or operator of each affected facility subject to a federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under §60.42c or §60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

**PART 70 OPERATING PERMIT RENEWAL  
OFFICE OF AIR QUALITY**

**AM General LLC  
13200 McKinley Hwy  
Mishawaka, Indiana 46545**

**Attachment B**

**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**

**T141-17644-00031**

## **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.

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

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<sub>i</sub>= 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<sub>i</sub>= 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:

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

Where:

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

$m_{\text{volatiles}}$ = 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.

$D_{\text{avg}}$ = 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:

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

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.

$$H_e = A + B + C - R_w \quad (\text{Eq. 1})$$

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<sub>w</sub> = 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<sub>w</sub> 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:

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

Where:

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

Vol<sub>c,i</sub> = Total volume of coating, i, used during the month, liters.

D<sub>c,i</sub> = Density of coating, i, kg coating per liter coating.

W<sub>c,i</sub> = 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:

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

Where:

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

Vol<sub>t,j</sub> = Total volume of thinner and/or other additive, j, used during the month, liters.

D<sub>t,j</sub> = Density of thinner and/or other additive, j, kg per liter.

W<sub>t,j</sub> = 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:

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

Where:

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

Vol<sub>s,k</sub> = Total volume of cleaning material, k, used during the month, liters.

D<sub>s,k</sub> = Density of cleaning material, k, kg per liter.

W<sub>s,k</sub> = 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:

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

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:

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

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.

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

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 TSD 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:

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

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:

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

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:

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

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:

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

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  $\pm 2.0$  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:

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

Where:

$R_{VR}$  = 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:

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

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.

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

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:

$$B_{CSR} = \sum_{j=1}^n (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad (Eq. 3B)$$

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:

$$C_{CSR} = \sum_{k=1}^p (Vol_{s,k})(D_{s,k})(W_{s,k}) \quad (Eq. 3C)$$

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:

$$H_{HAP} = H_e - \sum_{i=1}^q (H_{c,i}) - \sum_{j=1}^r (H_{CSR,j}) \quad (Eq. 4)$$

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:

$$H_{annual} = \frac{\sum_{y=1}^n H_{HAP,y}}{\sum_{y=1}^n V_{st,y}} \quad (Eq. 5)$$

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:

$$TVH_{used} = \sum_{i=1}^n (TVH_i)(Vol_i)(D_i) \quad (Eq. 1)$$

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:

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \quad (\text{Eq. 2})$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH<sub>used</sub> = Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

TVH<sub>uncaptured</sub> = 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:

$$CE = \frac{TVH_{\text{captured}}}{(TVH_{\text{captured}} + TVH_{\text{uncaptured}})} \times 100 \quad (\text{Eq. 3})$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH<sub>captured</sub> = 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<sub>uncaptured</sub> = 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:

$$M_f = Q_{sd} C_c (12) (0.0416) (10^{-6}) \quad (\text{Eq. 1})$$

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 ( $\text{mol/m}^3$ ) (@ 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:

$$DRE = \frac{M_{f,i} - M_{f,o}}{M_{f,i}} \times 100 \quad (\text{Eq. 2})$$

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:

<b>For the following device . . .</b>	<b>You must meet the following operating limit . . .</b>	<b>And you must demonstrate continuous compliance with the operating limit by . . .</b>
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit	i. Collecting the combustion temperature data according to §63.3968(c); ii. Reducing the data to 3-hour block

	established according to §63.3967(a)	averages; and 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); ii. Reducing the data to 3-hour block averages; and 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); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit.
	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	i. Measuring the total regeneration desorbing gas ( e.g., steam or nitrogen) mass flow for each regeneration cycle according to §63.3968(d); and ii. Maintaining the total regeneration desorbing gas mass flow at or above

	to §63.3967(c); and	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 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); ii. Reducing the data to 3-hour block averages; and 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); ii. Reducing the data to 3-hour block averages; and 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); ii. Reducing the pressure drop data to 3-hour block averages; and 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 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.
	c. The pressure drop across the enclosure must be at least 0.007 inch H <sub>2</sub> O, 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); ii. Reducing the data to 3-hour block averages; and 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.
§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 M MMM does not have monitoring requirements for flares.
§63.8(b)	Conduct of Monitoring	Yes	
§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 M MMM 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 M MMM 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 M MMM 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 M MMM does not have opacity or visible emissions standards.
§63.9(g)(1)–	Additional Notifications When	No	Subpart M MMM does not

(3)	Using CMS		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	
§63.10(b)(2)(xii)	Records	Yes	
§63.10(b)(2)(xiii)		No	Subpart M MMM 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)		No	The same records are

(7)–(8)			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 M MMM 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 M MMM 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 M MMM does not specify requirements for opacity or COMS.
§63.10(f)	Recordkeeping/Reporting Waiver	Yes	
§63.11	Control Device Requirements/Flares	No	Subpart M MMM 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	Yes	

	Information/Confidentiality		
--	-----------------------------	--	--

**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	64742-	0	None.

naphtha	48–9		
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 <sup>®</sup> 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<sup>a</sup>**

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.

<b>Solvent type</b>	<b>Average organic HAP mass fraction</b>	<b>Typical organic HAP, percent by mass</b>
Aliphatic <sup>b</sup>	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic <sup>c</sup>	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

<sup>a</sup>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.

<sup>b</sup>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.

<sup>c</sup>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<sub>i</sub>) 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<sub>v</sub>* in Method 24) minus the weight fraction water (*W<sub>w</sub>* 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<sub>*i*</sub>) or mass (MASS<sub>*i*</sub>) of each coating, thinner, additive, or cleaning material, *i*, used during each test run.

3.6 Calculate the total volatile hydrocarbon input (TVHC<sub>inlet</sub>) to the control device during each test run, as carbon, using Equation 1:

$$TVHC_{inlet} = \sum_{i=1}^n (TVH_i \times VOL_i \times D_i \times CD_i) \quad (Eq. 1)$$

where:

TVH<sub>i</sub>= Mass fraction of TVH in coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run.

VOL<sub>i</sub>= Volume of coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, liters.

D<sub>i</sub>= Density of coating, thinner, additive, or cleaning material, i, used in the coating operation during the test run, kg per liter.

CD<sub>i</sub>= 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<sub>i</sub>, of each coating, solvent, additive, or cleaning material, i, used during the test run is measured directly then MASS<sub>i</sub> can be substituted for VOL<sub>i</sub> × D<sub>i</sub> in Equation 1 in section 3.6.

3.8 Determine the TVHC output (TVHC<sub>outlet</sub>) from the control device, as carbon, during each test run using the methods in §63.3966(a) and the procedure for determining M<sub>fo</sub> in §63.3966(d). TVHC<sub>outlet</sub> equals M<sub>fo</sub> times the length of the test run in hours.

3.9 Determine the control device efficiency (DRE) for each test run using Equation 2:

$$DRE = \frac{(TVHC_{inlet} - TVHC_{outlet})}{TVHC_{inlet}} \times 100 \quad (\text{Eq. 2})$$

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**

<b>If the catalyst was last (more recently) replaced and the warranty period is . . .</b>	<b>Then the time between catalyst replacement and the next catalyst activity test cannot exceed the earlier of . . .</b>	<b>And the catalyst was more recently tested, then the time between catalyst activity tests cannot exceed the earlier of . . .</b>
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<sub>o</sub> 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.

**PART 70 OPERATING PERMIT RENEWAL  
OFFICE OF AIR QUALITY**

**AM General LLC  
13200 McKinley Hwy  
Mishawaka, Indiana 46545**

**Attachment C**

**Title 40: Protection of Environment**

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

**Subpart III—National Emission Standards for Hazardous Air Pollutants: Surface Coating  
of Automobiles and Light-Duty Trucks**

**T141-17644-00031**

### **Subpart III—National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks**

**Source:** 69 FR 22623, April 26, 2004, unless otherwise noted.

#### **What This Subpart Covers**

##### **§ 63.3080 What is the purpose of this subpart?**

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for facilities which surface coat new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks. This subpart also establishes NESHAP for facilities which surface coat new other motor vehicle bodies or body parts for new other motor vehicles which you choose to include in your affected source pursuant to §63.3082(c). This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

[71 FR 76926, Dec. 22, 2006]

##### **§ 63.3081 Am I subject to this subpart?**

(a) Except as provided in paragraph (c) of this section, the source category to which this subpart applies is automobile and light-duty truck surface coating.

(b) You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.3082, that, except as noted in paragraph (b)(1) of this section, is located at a facility which applies topcoat to new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks, and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAP). You are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.3082, in which you choose to include, pursuant to §63.3082(c), any coating operations which apply coatings to new other motor vehicle bodies or body parts for new other motor vehicles; parts intended for use in new automobiles, new light-duty trucks, or new other motor vehicles; or aftermarket repair or replacement parts for automobiles, light-duty trucks, or other motor vehicles; and the affected source is located at a facility 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.

(1) You are not subject to this subpart if you meet all of the criteria of paragraphs (b)(1)(i) through (iii) of this section:

(i) Your coating operation is located at a plastic or composites molding facility;

(ii) All of the body parts topcoated at your facility for use in new automobiles or new light-duty trucks were fabricated (molded, stamped, formed, etc.) at your facility or at another plastic or composites molding facility which you own or operate, and none of the new vehicles in which these body parts are used are assembled at your facility; and

(iii) You do not topcoat all of the body parts for any single new automobile or new light-duty truck at your facility.

(2) [Reserved]

(c) This subpart does not apply to surface coating, surface preparation, or cleaning activities that meet the criteria of paragraph (c)(1) or (2) of this section.

(1) Surface coating subject to any other NESHAP in this part as of June 25, 2004 except as provided in §63.3082(c).

(2) Surface coating that occurs during research or laboratory activities or that is part of janitorial, building, and facility maintenance operations, including maintenance spray booths used for painting production equipment, furniture, signage, etc., for use within the plant.

[57 FR 61992, Dec. 29, 1992, as amended at 72 FR 20233, Apr. 24, 2007]

**§ 63.3082 What parts of my plant does this subpart cover?**

(a) This subpart applies to each new, reconstructed, and existing affected source.

(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 new automobile or new light-duty truck bodies, or body parts for new automobiles or new light-duty trucks:

(1) All coating operations as defined in §63.3176.

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

(3) All manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials.

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

(c) In addition, you may choose to include in your affected source, and thereby make subject to the requirements of this subpart, any coating operations, as defined in §63.3176, which would otherwise be subject to the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (subpart MMMM of this part) or the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (subpart PPPP of this part) which apply coatings to new other motor vehicle bodies or body parts for new other motor vehicles, parts intended for use in new automobiles, new light-duty trucks, or new other motor vehicles, or aftermarket repair or replacement parts for automobiles, light-duty trucks, or other motor vehicles.

(d) For all coating operations which you choose to add to your affected source pursuant to paragraph (c) of this section:

(1) All associated storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed; manual and automated equipment and containers used for conveying coatings, thinners, and cleaning materials; and storage containers and manual and automated equipment and containers used for conveying waste materials are also included in your affected source and are subject to the requirements of this subpart.

(2) All cleaning and purging of equipment associated with the added surface coating operations is subject to the requirements of this subpart.

(3) You must identify and describe all additions to the affected source made pursuant to paragraph (c) of this section in the initial notification required in §63.3110(b).

(e) An affected source is a new affected source if:

(1) You commenced its construction after December 24, 2002; and

(2) The construction is of a completely new automobile and light-duty truck assembly plant, automobile and light-duty truck paint shop, automobile and light-duty truck topcoat operation, other motor vehicle assembly plant, other motor vehicle paint shop, or other motor vehicle topcoat operation where previously no automobile and light-duty truck assembly plant, automobile and light-duty truck assembly paint shop, or automobile and light-duty truck assembly topcoat operation had existed; and

(i) No other motor vehicle assembly plant, other motor vehicle paint shop, or other motor vehicle topcoat operation had existed previously; or

(ii) No previously existing other motor vehicle assembly plant, other motor vehicle paint shop, or other motor vehicle topcoat operation is subject to this subpart; or

(iii) If the facility was previously not a major source for HAP, no previously existing other motor vehicle assembly plant, other motor vehicle paint shop, or other motor vehicle topcoat operation is made part of the affected source under this subpart.

(f) An affected source is reconstructed if its paint shop undergoes replacement of components to such an extent that:

(1) The fixed capital cost of the new components exceeded 50 percent of the fixed capital cost that would be required to construct a new paint shop; and

(2) It was technologically and economically feasible for the reconstructed source to meet the relevant standards established by the Administrator pursuant to section 112 of the Clean Air Act (CAA).

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

[69 FR 22623, Apr. 26, 2004, as amended at 71 FR 76926, Dec. 22, 2006]

### **§ 63.3083 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 demonstrations described in §§63.3150, 63.3160, and 63.3170.

(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 June 25, 2004, the compliance date is June 25, 2004.

(2) If the initial startup of your new or reconstructed affected source occurs after June 25, 2004, the compliance date is the date of initial startup of your affected source.

(b) For an existing affected source, the compliance date is April 26, 2007.

(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 June 25, 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 April 26, 2007, whichever is later.

(d) You must meet the notification requirements in §63.3110 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

### § 63.3090 What emission limits must I meet for a new or reconstructed affected source?

(a) Except as provided in paragraph (b) of this section, you must limit combined organic HAP emissions to the atmosphere from electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) to no more than 0.036 kilogram (kg)/liter (0.30 pound (lb)/gallon (gal)) of coating solids deposited during each month, determined according to the requirements in §63.3161.

(b) If you meet the operating limits of §63.3092(a) or (b), you must either meet the emission limits of paragraph (a) of this section or limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) to no more than 0.060 kg/liter (0.50 lb/gal) of applied coating solids used during each month, determined according to the requirements in §63.3171. If you do not have an electrodeposition primer system, you must limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) to no more than 0.060 kg/liter (0.50 lb/gal) of applied coating solids used during each month, determined according to the requirements in §63.3171.

(c) You must limit average organic HAP emissions from all adhesive and sealer materials other than materials used as components of glass bonding systems to no more than 0.010 kg/kg (lb/lb) of adhesive and sealer material used during each month.

(d) You must limit average organic HAP emissions from all deadener materials to no more than 0.010 kg/kg (lb/lb) of deadener material used during each month.

(e) For coatings and thinners used in coating operations added to the affected source pursuant to §63.3082(c):

(1) Adhesive and sealer materials that are not components of glass bonding systems are subject to and must be included in your demonstration of compliance for paragraph (c) of this section.

(2) Deadener materials are subject to and must be included in your demonstration of compliance for paragraph (d) of this section.

(3) All other coatings and thinners are subject to and must be included in your demonstration of compliance for paragraphs (a) or (b) of this section.

(f) If your facility has multiple paint lines ( e.g., two or more totally distinct paint lines each serving a distinct assembly line, or a facility with two or more paint lines sharing the same paint kitchen or mix room), then for the operations addressed in paragraphs (a) and (b) of this section:

(1) You may choose to use a single grouping under paragraph (a) of this section for all of your electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations.

(2) You may choose to use a single grouping under paragraph (b) of this section for all of your primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations as long as each of your electrodeposition primer systems meets the operating limits of §63.3092(a) or (b).

(3) You may choose to use one or more groupings under paragraph (a) of this section for the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from one or more of your paint lines; and one or more groupings under paragraph (b) of this section for the primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from the remainder of your paint lines, as long as each electrodeposition primer system associated with each paint line you include in a grouping under paragraph (b) of this section meets the operating limits of §63.3092(a) or (b). For example, if your facility has three paint lines, you may choose to use one grouping under paragraph (a) of this section for two of the paint lines; and a separate grouping under paragraph (b) of this section for the third paint line, as long as the electrodeposition primer system associated with the paint line you include in the grouping under paragraph (b) of this section meets the operating limits of §63.3092(a) or (b). Alternatively, you may choose to use one grouping for two of the paint lines and a separate grouping of the same type for the third paint line. Again, each electrodeposition primer system associated with each paint line you include in a grouping under paragraph (b) of this section must meet the operating limits of §63.3092(a) or (b).

(4) You may choose to consider the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from each of your paint lines as a separate grouping under either paragraph (a) or paragraph (b) of this section. The electrodeposition primer system associated with each paint line you choose to consider in a grouping under paragraph (b) of this section must meet the operating limits of §63.3092(a) or (b). For example, if your facility has two paint lines, you may choose to use the grouping under paragraph (a) of this section for one paint line and the grouping under paragraph (b) of this section for the other paint line.

#### **§ 63.3091 What emission limits must I meet for an existing affected source?**

(a) Except as provided in paragraph (b) of this section, you must limit combined organic HAP emissions to the atmosphere from electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) to no more than 0.072 kg/liter (0.60 lb/gal) of coating solids deposited during each month, determined according to the requirements in §63.3161.

(b) If you meet the operating limits of §63.3092(a) or (b), you must either meet the emission limits of paragraph (a) of this section or limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) to no more than 0.132 kg/liter (1.10 lb/gal) of coating solids deposited during each month, determined according to the requirements in §63.3171. If you do not have an electrodeposition primer system, you must limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) to no more than 0.132 kg/liter (1.10 lb/gal) of coating solids deposited during each month, determined according to the requirements in §63.3171.

(c) You must limit average organic HAP emissions from all adhesive and sealer materials other than materials used as components of glass bonding systems to no more than 0.010 kg/kg (lb/lb) of adhesive and sealer material used during each month.

(d) You must limit average organic HAP emissions from all deadener materials to no more than 0.010 kg/kg (lb/lb) of deadener material used during each month.

(e) For coatings and thinners used in coating operations added to the affected source pursuant to §63.3082(c):

(1) Adhesive and sealer materials that are not components of glass bonding systems are subject to and must be included in your demonstration of compliance for paragraph (c) of this section.

(2) Deadener materials are subject to and must be included in your demonstration of compliance for paragraph (d) of this section.

(3) All other coatings and thinners are subject to and must be included in your demonstration of compliance for paragraphs (a) or (b) of this section.

(f) If your facility has multiple paint lines ( e.g., two or more totally distinct paint lines each serving a distinct assembly line, or a facility with two or more paint lines sharing the same paint kitchen or mix room), then for the operations addressed in paragraphs (a) and (b) of this section:

(1) You may choose to use a single grouping under paragraph (a) of this section for all of your electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations.

(2) You may choose to use a single grouping under paragraph (b) of this section for all of your primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations, as long as each of your electrodeposition primer systems meets the operating limits of §63.3092(a) or (b).

(3) You may choose to use one or more groupings under paragraph (a) of this section for the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from one or more of your paint lines; and one or more groupings under paragraph (b) of this section for the primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from the remainder of your paint lines, as long as each electrodeposition primer system associated with each paint line you include in a grouping under paragraph (b) of this section meets the operating limits of §63.3092(a) or (b). For example, if your facility has three paint lines, you may choose to use one grouping under paragraph (a) of this section for two of the paint lines and a separate grouping under paragraph (b) of this section for the third paint line, as long as the electrodeposition primer system associated with the paint line you include in the grouping under paragraph (b) of this section meets the operating limits of §63.3092(a) or (b). Alternatively, you may choose to use one grouping for two of the paint lines and a separate grouping of the same type for the third paint line. Again, each electrodeposition primer system associated with each paint line you include in a grouping under paragraph (b) of this section must meet the operating limits of §63.3092(a) or (b).

(4) You may choose to consider the electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations from each of your paint lines as a separate grouping under either paragraph (a) or paragraph (b) of this section. The electrodeposition primer system associated with each paint line you choose to consider in a grouping under paragraph (b) of this section must meet the operating limits of §63.3092(a) or (b). For example, if your facility has two paint lines, you may choose to use the grouping under paragraph (a) of this section for one paint line and the grouping under paragraph (b) of this section for the other paint line.

**§ 63.3092 How must I control emissions from my electrodeposition primer system if I want to comply with the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive emission limit?**

If your electrodeposition primer system meets the requirements of either paragraph (a) or (b) of this section, you may choose to comply with the emission limits of §63.3090(b) or §63.3091(b) instead of the emission limits of §63.3090(a) or §63.3091(a).

(a) Each individual material added to the electrodeposition primer system contains no more than:

(1) 1.0 percent by weight of any organic HAP; and

(2) 0.10 percent by weight of any organic HAP which is an Occupational Safety and Health Administration (OSHA)-defined carcinogen as specified in 29 CFR 1910.1200(d)(4).

(b) Emissions from all bake ovens used to cure electrodeposition primers must be captured and ducted to a control device having a destruction or removal efficiency of at least 95 percent.

### **§ 63.3093 What operating limits must I meet?**

(a) You are not required to meet any operating limits for any coating operation(s) without add-on controls.

(b) Except as provided in paragraph (d) of this section, for any controlled coating operation(s), you must meet the operating limits specified in Table 1 to this subpart. These operating limits apply to the emission capture and add-on 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 §63.3167. You must meet the operating limits at all times after you establish them.

(c) If you choose to meet the emission limitations of §63.3092(b) and the emission limits of §63.3090(b) or §63.3091(b), then except as provided in paragraph (d) of this section, you must operate the capture system and add-on control device used to capture and control emissions from your electrodeposition primer bake oven(s) so that they meet the operating limits specified in Table 1 to this subpart.

(d) 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).

### **§ 63.3094 What work practice standards must I meet?**

(a) [Reserved]

(b) You must develop and implement a work practice plan to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, all coating operations for which emission limits are established under §63.3090(a) through (d) or §63.3091(a) through (d). 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, cleaning materials, and waste materials must be stored in closed containers.

(2) The risk of spills of organic-HAP-containing coatings, thinners, cleaning materials, and waste materials must be minimized.

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

(4) Mixing vessels, other than day tanks equipped with continuous agitation systems, 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) You must develop and implement a work practice plan to minimize organic HAP emissions from cleaning and from purging of equipment associated with all coating operations for which emission limits are established under §63.3090(a) through (d) or §63.3091(a) through (d).

(1) The plan shall, at a minimum, address each of the operations listed in paragraphs (c)(1)(i) through (viii) of this section in which you use organic-HAP-containing materials or in which there is a potential for emission of organic HAP.

(i) The plan must address vehicle body wipe emissions through one or more of the techniques listed in paragraphs (c)(1)(i)(A) through (E) of this section, or an approved alternative.

(A) Use of solvent-moistened wipes.

(B) Keeping solvent containers closed when not in use.

(C) Keeping wipe disposal/recovery containers closed when not in use.

(D) Use of tack-wipes.

(E) Use of solvents containing less than 1 percent organic HAP by weight.

(ii) The plan must address coating line purging emissions through one or more of the techniques listed in paragraphs (c)(1)(ii)(A) through (D) of this section, or an approved alternative.

(A) Air/solvent push-out.

(B) Capture and reclaim or recovery of purge materials (excluding applicator nozzles/tips).

(C) Block painting to the maximum extent feasible.

(D) Use of low-HAP or no-HAP solvents for purge.

(iii) The plan must address emissions from flushing of coating systems through one or more of the techniques listed in paragraphs (c)(1)(iii)(A) through (D) of this section, or an approved alternative.

(A) Keeping solvent tanks closed.

(B) Recovering and recycling solvents.

(C) Keeping recovered/recycled solvent tanks closed.

(D) Use of low-HAP or no-HAP solvents.

(iv) The plan must address emissions from cleaning of spray booth grates through one or more of the techniques listed in paragraphs (c)(1)(iv)(A) through (E) of this section, or an approved alternative.

(A) Controlled burn-off.

(B) Rinsing with high-pressure water (in place).

(C) Rinsing with high-pressure water (off line).

(D) Use of spray-on masking or other type of liquid masking.

(E) Use of low-HAP or no-HAP content cleaners.

(v) The plan must address emissions from cleaning of spray booth walls through one or more of the techniques listed in paragraphs (c)(1)(v)(A) through (E) of this section, or an approved alternative.

(A) Use of masking materials (contact paper, plastic sheet, or other similar type of material).

(B) Use of spray-on masking.

(C) Use of rags and manual wipes instead of spray application when cleaning walls.

(D) Use of low-HAP or no-HAP content cleaners.

(E) Controlled access to cleaning solvents.

(vi) The plan must address emissions from cleaning of spray booth equipment through one or more of the techniques listed in paragraphs (c)(1)(vi)(A) through (E) of this section, or an approved alternative.

(A) Use of covers on equipment (disposable or reusable).

(B) Use of parts cleaners (off-line submersion cleaning).

(C) Use of spray-on masking or other protective coatings.

(D) Use of low-HAP or no-HAP content cleaners.

(E) Controlled access to cleaning solvents.

(vii) The plan must address emissions from cleaning of external spray booth areas through one or more of the techniques listed in paragraphs (c)(1)(vii)(A) through (F) of this section, or an approved alternative.

(A) Use of removable floor coverings (paper, foil, plastic, or similar type of material).

(B) Use of manual and/or mechanical scrubbers, rags, or wipes instead of spray application.

(C) Use of shoe cleaners to eliminate coating track-out from spray booths.

(D) Use of booties or shoe wraps.

(E) Use of low-HAP or no-HAP content cleaners.

(F) Controlled access to cleaning solvents.

(viii) The plan must address emissions from housekeeping measures not addressed in paragraphs (c)(1)(i) through (vii) of this section through one or more of the techniques listed in paragraphs (c)(1)(viii)(A) through (C) of this section, or an approved alternative.

(A) Keeping solvent-laden articles (cloths, paper, plastic, rags, wipes, and similar items) in covered containers when not in use.

(B) Storing new and used solvents in closed containers.

(C) Transferring of solvents in a manner to minimize the risk of spills.

(2) Notwithstanding the requirements of paragraphs (c)(1)(i) through (viii) of this section, if the type of coatings used in any facility with surface coating operations subject to the requirements of this section are of such a nature that the need for one or more of the practices specified under paragraphs (c)(1)(i) through (viii) is eliminated, then the plan may include approved alternative or equivalent measures that are applicable or necessary during cleaning of storage, conveying, and application equipment.

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

(e) The work practice plans developed in accordance with paragraphs (b) and (c) of this section are not required to be incorporated in your title V permit. Any revisions to the work practice plans developed in accordance with paragraphs (b) and (c) of this section do not constitute revisions to your title V permit.

(f) Copies of the current work practice plans developed in accordance with paragraphs (b) and (c) of this section, as well as plans developed within the preceding 5 years must be available on-site for inspection and copying by the permitting authority.

## **General Compliance Requirements**

### **§ 63.3100 What are my general requirements for complying with this subpart?**

(a) You must be in compliance with the emission limitations in §§63.3090 and 63.3091 at all times, as determined on a monthly basis.

(b) The coating operations must be in compliance with the operating limits for emission capture systems and add-on control devices required by §63.3093 at all times except during periods of startup, shutdown, and malfunction.

(c) You must be in compliance with the work practice standards in §63.3094 at all times.

(d) 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).

(e) You must maintain a log detailing the operation and maintenance of the emission capture systems, add-on control devices, and continuous parameter monitoring systems (CPMS) during the period between the compliance date specified for your affected source in §63.3083 and the date when the initial emission capture system and add-on control device performance tests have been completed, as specified in §63.3160.

(f) If your affected source uses emission capture systems and add-on control devices, you must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3). The SSMP must address startup, shutdown, and corrective actions in the event of a malfunction of the emission capture system or the add-on control devices.

[69 FR 22623, April 26, 2004, as amended at 71 FR 20464, Apr. 20, 2006]

### **§ 63.3101 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**

### **§ 63.3110 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) 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 June 25, 2004, whichever is later. For an existing affected source, you must submit the Initial Notification no later than 1 year after April 26, 2004. Existing sources that have previously submitted notifications of applicability of this rule pursuant to §112(j) of the CAA are not required to submit an Initial Notification under §63.9(b) except to identify and describe all additions to the affected source made pursuant to §63.3082(c). If you elect to include the surface coating of new other motor vehicle bodies, body parts for new other motor vehicles, parts for new other motor vehicles, or aftermarket repair or replacement parts for other motor vehicles in your affected source pursuant to §63.3082(c) and your affected source has an initial startup before February 20, 2007, then you must submit an Initial Notification of this election no later than 120 days after initial startup or February 20, 2007, whichever is later.

(c) *Notification of compliance status.* If you have an existing source, you must submit the Notification of Compliance Status required by §63.9(h) no later than 30 days following the end of the initial compliance period described in §63.3160. If you have a new source, you must submit the Notification of Compliance Status required by §63.9(h) no later than 60 days after the first day of the first full month following completion of all applicable performance tests. The Notification of Compliance Status must contain the information specified in paragraphs (c)(1) through (12) 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 §63.3160 that applies to your affected source.

(4) Identification of the compliance option specified in §63.3090(a) or (b) or §63.3091(a) or (b) that you used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) 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 any of the applicable emission limits in §63.3090 or §63.3091, include all the calculations you used to determine the applicable emission rate or applicable average organic HAP content for the emission limit(s) that you failed to meet. You do not need to submit information provided by the materials suppliers or manufacturers, or test reports.

(7) All data and calculations used to determine the monthly average mass of organic HAP emitted per volume of applied coating solids from:

(i) The combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) if you were eligible for and chose to comply with the emission limits of §63.3090(b) or §63.3091(b); or

(ii) The combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c).

(8) All data and calculations used to determine compliance with the separate limits for electrodeposition primer in §63.3092(a) or (b) if you were eligible for and chose to comply with the emission limits of §63.3090(b) or §63.3091(b).

(9) All data and calculations used to determine the monthly mass average HAP content of materials subject to the emission limits of §63.3090(c) or (d) or the emission limits of §63.3091(c) or (d).

(10) All data and calculations used to determine the transfer efficiency for primer-surfacer and topcoat coatings, and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c).

(11) You must include the information specified in paragraphs (c)(11)(i) through (iii) of this section.

(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 procedure 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 unless requested.

(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.

(12) A statement of whether or not you developed and implemented the work practice plans required by §63.3094(b) and (c).

[69 FR 22623, Apr. 26, 2004, as amended at 71 FR 76927, Dec. 22, 2006]

### **§ 63.3120 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 (9) of this section. The semiannual compliance reporting requirements may be satisfied by reports required under other parts of the CAA, as specified in paragraph (a)(2) of this section.

(1) *Dates.* Unless the Administrator has approved 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.

(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 §63.3160 that applies to your affected source and ends on June 30 or December 31, whichever occurs first 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.* If you have obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71, you 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 you submit 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 limit, operating limit, or work practice in this subpart, its submission shall 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 you 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 (iv) of this section, and the information specified in paragraphs (a)(4) through (9) and (c)(1) of this section that are 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.

(iv) Identification of the compliance option specified in §63.3090(b) or §63.3091(b) that you used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) in the affected source during the initial compliance period.

(4) *No deviations.* If there were no deviations from the emission limitations, operating limits, or work practices in §§63.3090, 63.3091, 63.3092, 63.3093, and 63.3094 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 control devices to comply with the emission limits, and there were no periods during which the 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: adhesive, sealer, and deadener.* If there was a deviation from the applicable emission limits in §63.3090(c) and (d) or §63.3091(c) and (d), the semiannual compliance report must contain the information in paragraphs (a)(5)(i) through (iv) of this section.

(i) The beginning and ending dates of each month during which the monthly average organic HAP content exceeded the applicable emission limit in §63.3090(c) and (d) or §63.3091(c) and (d).

(ii) The volume and organic HAP content of each material used that is subject to the applicable organic HAP content limit.

(iii) The calculation used to determine the average monthly organic HAP content for the month in which the deviation occurred.

(iv) The reason for the deviation.

(6) *Deviations: combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer and glass bonding adhesive, or combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c).* If there was a deviation from the applicable emission limits in §63.3090(a) or (b) or §63.3091(a) or (b), the semiannual compliance report must contain the information in paragraphs (a)(6)(i) through (xiv) of this section.

(i) The beginning and ending dates of each month during which the monthly organic HAP emission rate from combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) exceeded the applicable emission limit in §63.3090(a) or §63.3091(a); or the monthly organic HAP emission rate from combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) exceeded the applicable emission limit in §63.3090(b) or §63.3091(b).

(ii) The calculation used to determine the monthly organic HAP emission rate in accordance with §63.3161 or §63.3171. You do not need to submit the background data supporting these calculations, for example information provided by materials suppliers or manufacturers, or test reports.

(iii) The date and time that any malfunctions of the capture system or add-on control devices used to control emissions from these operations 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 and time period 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 each bypass of an 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 and the percent of the total source operating time of the deviations from each operating limit in Table 1 to this subpart and the bypass of each add-on control device during the semiannual reporting period.

(x) A breakdown of the total duration of the deviations from each operating limit in Table 1 to this subpart and bypasses of each 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 and the percent of the total source operating time of the downtime for each CPMS during the semiannual reporting period.

(xii) A description of any changes in the CPMS, coating operation, emission capture system, or add-on control devices 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.

(7) *Deviations: separate electrodeposition primer organic HAP content limit.* If you used the separate electrodeposition primer organic HAP content limits in §63.3092(a), and there was a deviation from these limits, the semiannual compliance report must contain the information in paragraphs (a)(7)(i) through (iii) of this section.

(i) Identification of each material used that deviated from the emission limit, and the dates and time periods each was used.

(ii) The determination of mass fraction of each organic HAP for each material identified in paragraph (a)(7)(i) of this section. You do not need to submit background data supporting this calculation, for example, information provided by material suppliers or manufacturers, or test reports.

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

(8) *Deviations: separate electrodeposition primer bake oven capture and control limitations.* If you used the separate electrodeposition primer bake oven capture and control limitations in §63.3092(b), and there was a deviation from these limitations, the semiannual compliance report must contain the information in paragraphs (a)(8)(i) through (xii) of this section.

(i) The beginning and ending dates of each month during which there was a deviation from the separate electrodeposition primer bake oven capture and control limitations in §63.3092(b).

(ii) The date and time that any malfunctions of the capture systems or control devices used to control emissions from the electrodeposition primer bake oven started and stopped.

(iii) A brief description of the CPMS.

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

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

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

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

(viii) A summary of the total duration and the percent of the total source operating time of the deviations from each operating limit in Table 1 to this subpart and the bypasses of each add-on control device during the semiannual reporting period.

(ix) A breakdown of the total duration of the deviations from each operating limit in Table 1 to this subpart and bypasses of each 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.

(x) A summary of the total duration and the percent of the total source operating time of the downtime for each CPMS during the semiannual reporting period.

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

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

(9) *Deviations: work practice plans.* If there was a deviation from an applicable work practice plan developed in accordance with §63.3094(b) or (c), the semiannual compliance report must contain the information in paragraphs (a)(9)(i) through (iii) of this section.

(i) The time period during which each deviation occurred.

(ii) The nature of each deviation.

(iii) The corrective action(s) taken to bring the applicable work practices into compliance with the work practice plan.

(b) *Performance test reports.* If you use add-on control devices, 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). You must submit reports of transfer efficiency tests no later than 60 days after completing the tests as specified in §63.10(d)(2).

(c) *Startup, shutdown, and malfunction reports.* If you used add-on control devices 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 SSMP, 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 SSMP, 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).

### **§ 63.3130 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.

(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, the density and the volume fraction of coating solids for each coating, the mass fraction of organic HAP and the density for each thinner, and the mass fraction of organic HAP for each cleaning material. 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. If you use the results of an analysis conducted by an outside testing lab, you must keep a copy of the test report. You are not required to obtain the test report or other supporting documentation from the manufacturer or supplier.

(c) For each month, the records specified in paragraphs (c)(1) through (6) of this section.

(1) For each coating used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations and for each coating, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c), a record of the volume used in each month, the mass fraction organic HAP content, the density, and the volume fraction of solids.

(2) For each thinner used for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations and for each thinner, except for thinner used for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c), a record of the volume used in each month, the mass fraction organic HAP content, and the density.

(3) For each deadener material and for each adhesive and sealer material, a record of the mass used in each month and the mass organic HAP content.

(4) A record of the calculation of the organic HAP emission rate for electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) for each month if subject to the emission limit of §63.3090(a) or §63.3091(a). This record must include all raw data, algorithms, and intermediate calculations. If the guidelines presented in the "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22), are used, you must keep records of all data input to this protocol. If these data are maintained as electronic files, the electronic files, as well as any paper copies must be maintained. These data must be provided to the permitting authority on request on paper, and in (if calculations are done electronically) electronic form.

(5) A record of the calculation of the organic HAP emission rate for primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) for each month if subject to the emission limit of §63.3090(b) or §63.3091(b), and a record of the weight fraction of each organic HAP in each material added to the electrodeposition primer system if subject to the limitations of §63.3092(a). This record must include all raw data, algorithms, and intermediate calculations. If the guidelines presented in the "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22), are used, you must keep records of all data input to this protocol. If these data are maintained as electronic files, the electronic files, as well as any paper copies must be maintained. These data must be provided to the permitting authority on request on paper, and in (if calculations are done electronically) electronic form.

(6) A record, for each month, of the calculation of the average monthly mass organic HAP content of:

(i) Sealers and adhesives; and

(ii) Deadeners.

(d) A record of the name and volume of each cleaning material used during each month.

(e) A record of the mass fraction of organic HAP for each cleaning material used during each month.

(f) A record of the density for each cleaning material used during each month.

(g) A record of the date, time, and duration of each deviation, and for each deviation, a record of whether the deviation occurred during a period of startup, shutdown, or malfunction.

(h) The records required by §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(i) 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 §63.3165(a).

(j) 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 §§63.3164 and 63.3165(b) through (g), including the records specified in paragraphs (j)(1) through (4) of this section that apply to you.

(1) *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 F 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 E 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.

(2) *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 C 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 E 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.

(3) *Records for panel tests.* Records needed to document a capture efficiency determination using a panel test as described in §63.3165(e) and (g), including a copy of the test report and calculations performed to convert the panel test results to percent capture efficiency values.

(4) *Records for an alternative protocol.* Records needed to document a capture efficiency determination using an alternative method or protocol, as specified in §63.3165(f), if applicable.

(k) The records specified in paragraphs (k)(1) and (2) of this section for each add-on control device organic HAP destruction or removal efficiency determination as specified in §63.3166.

(1) Records of each add-on control device performance test conducted according to §§63.3164 and 63.3166.

(2) 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.

(l) Records of the data and calculations you used to establish the emission capture and add-on control device operating limits as specified in §63.3167 and to document compliance with the operating limits as specified in Table 1 to this subpart.

(m) Records of the data and calculations you used to determine the transfer efficiency for primer-surfacer and topcoat coatings and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c).

(n) A record of the work practice plans required by §63.3094(b) and (c) and documentation that you are implementing the plans on a continuous basis. Appropriate documentation may include operational and maintenance records, records of documented inspections, and records of internal audits.

(o) For each add-on control device and for each continuous parameter monitoring system, a copy of the equipment operating instructions must be maintained on-site for the life of the equipment in a location readily

available to plant operators and inspectors. You may prepare your own equipment operating instructions, or they may be provided to you by the equipment supplier or other third party.

[69 FR 22623, Apr. 26, 2004, as amended at 72 FR 20233, Apr. 24, 2007]

### **§ 63.3131 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) Except as provided in §63.3130(o), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record, as specified in §63.10(b)(1).

(c) Except as provided in §63.3130(o), 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 Adhesive, Sealer, and Deadener**

### **§ 63.3150 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 §63.3151. The initial compliance period begins on the applicable compliance date specified in §63.3083 and ends on the last day of the 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 month. You must determine the mass average organic HAP content of the materials used each month for each group of materials for which an emission limitation is established in §63.3090(c) and (d) or §63.3091(c) and (d). The initial compliance demonstration includes the calculations according to §63.3151 and supporting documentation showing that during the initial compliance period, the mass average organic HAP content for each group of materials was equal to or less than the applicable emission limits in §63.3090(c) and (d) or §63.3091(c) and (d).

### **§ 63.3151 How do I demonstrate initial compliance with the emission limitations?**

You must separately calculate the mass average organic HAP content of the materials used during the initial compliance period for each group of materials for which an emission limit is established in §63.3090(c) and (d) or §63.3091(c) and (d). If every individual material used within a group of materials meets the emission limit for that group of materials, you may demonstrate compliance with that emission limit by documenting the name and the organic HAP content of each material used during the initial compliance period. If any individual material used within a group of materials exceeds the emission limit for that group of materials, you must determine the mass average organic HAP content according to the procedures of paragraph (d) of this section.

(a) *Determine the mass fraction of organic HAP for each material used.* You must determine the mass fraction of organic HAP for each 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 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., 0.7638 truncates to 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.

(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. 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, the facility demonstrates to the satisfaction of the enforcement authority that the facility's 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 neither test data nor manufacturer's data for solvent blends are available, you may use the default values for the mass fraction of organic HAP in the 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, and you may only use Table 4 if the solvent blends in the materials you use do not match any of the solvent blends in Table 3 and you only know whether the blend is aliphatic or aromatic. However, if the results of a Method 311 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, the facility demonstrates to the satisfaction of the enforcement authority that the data from Table 3 or 4 are correct.

(b) *Determine the density of each material used*. Determine the density of each material used during the compliance period from test results using ASTM Method D1475–98 (Reapproved 2003), "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see §63.14), or for powder coatings, test method A or test method B of ASTM Method D5965–02, "Standard Test Methods for Specific Gravity of Coating Powders," (incorporated by reference, see §63.14), or information from the supplier or manufacturer of the material. If there is disagreement between ASTM Method D1475–98 (Reapproved 2003) test results or ASTM Method D5965–02, test method A or test method B test results and the supplier's or manufacturer's information, the test results will take precedence unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

(c) *Determine the volume of each material used*. Determine the volume (liters) of each material used during each month by measurement or usage records.

(d) *Determine the mass average organic HAP content for each group of materials*. Determine the mass average organic HAP content of the materials used during the initial compliance period for each group of materials for which an emission limit is established in §63.3090(c) and (d) or §63.3091(c) and (d), using Equations 1 and 2 of this section.

(1) Calculate the mass average organic HAP content of adhesive and sealer materials other than components of the glass bonding system used in the initial compliance period using Equation 1 of this section:

$$C_{avg,as} = \frac{\sum_{j=1}^r (Vol_{as,j})(D_{as,j})(W_{as,j})}{\sum_{j=1}^r (Vol_{as,j})(D_{as,j})} \quad (Eq. 1)$$

Where:

$C_{avg,as}$  = Mass average organic HAP content of adhesives and sealer materials used, kg/kg.

$Vol_{as,j}$  = Volume of adhesive or sealer material, j, used, liters.

$D_{as,j}$  = Density of adhesive or sealer material, j, used, kg per liter.

$W_{as,j}$  = Mass fraction of organic HAP in adhesive or sealer material, j, kg/kg.

r = Number of adhesive and sealer materials used.

(2) Calculate the mass average organic HAP content of deadener materials used in the initial compliance period using Equation 2 of this section:

$$C_{avg,d} = \frac{\sum_{m=1}^s (Vol_{d,m})(D_{d,m})(W_{d,m})}{\sum_{m=1}^s (Vol_{d,m})(D_{d,m})} \quad (Eq. 2)$$

Where:

$C_{avg,d}$  = Mass average organic HAP content of deadener material used, kg/kg.

$Vol_{d,m}$  = Volume of deadener material, m, used, liters.

$D_{d,m}$  = Density of deadener material, m, used, kg per liter.

$W_{d,m}$  = Mass fraction of organic HAP in deadener material, m, kg/kg.

s = Number of deadener materials used.

(e) *Compliance demonstration.* The mass average organic HAP content for the compliance period must be less than or equal to the applicable emission limit in §63.3090(c) and (d) or §63.3091(c) and (d). You must keep all records as required by §§63.3130 and 63.3131. As part of the Notification of Compliance Status required by §63.3110, you must submit a statement that the coating operations were in compliance with the emission limitations during the initial compliance period because the mass average organic HAP content was less than or equal to the applicable emission limits in §63.3090(c) and (d) or §63.3091(c) and (d), determined according to this section.

### § 63.3152 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the mass average organic HAP content for each compliance period, determined according to §63.3151(a) through (d), must be less than or equal to the applicable

emission limit in §63.3090(c) and (d) or §63.3091(c) and (d). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in §63.3150 is a compliance period consisting of that month.

(b) If the mass average organic HAP emission content for any compliance period exceeds the applicable emission limit in §63.3090(c) and (d) or §63.3091(c) and (d), this is a deviation from the emission limitations for that compliance period and must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(5).

(c) You must maintain records as specified in §§63.3130 and 63.3131.

### **Compliance Requirements for the Combined Electrodeposition Primer, Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Limitations**

#### **§ 63.3160 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 §63.3083. You must conduct a performance test of each capture system and add-on control device according to §§63.3164 through 63.3166 and establish the operating limits required by §63.3093 no later than 180 days after the applicable compliance date specified in §63.3083.

(2) You must develop and begin implementing the work practice plans required by §63.3094(b) and (c) no later than the compliance date specified in §63.3083.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.3161. The initial compliance period begins on the applicable compliance date specified in §63.3083 and ends on the last day of the 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 month. You must determine the mass of organic HAP emissions and volume of coating solids deposited in 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 §§63.3164 through 63.3166; supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limit in §63.3090(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.3168; and documentation of whether you developed and implemented the work practice plans required by §63.3094(b) and (c).

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by §63.3093 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 CPMS 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.

(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 §63.3083. You must conduct a performance test of each capture system and add-on control device according to the procedures in §§63.3164 through 63.3166 and establish the operating limits required by §63.3093 no later than the compliance date specified in §63.3083.

(2) You must develop and begin implementing the work practice plans required by §63.3094(b) and (c) no later than the compliance date specified in §63.3083.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.3161. The initial compliance period begins on the applicable compliance date specified in §63.3083 and ends on the last day of the 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 month. You must determine the mass of organic HAP emissions and volume of coating solids deposited during 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 §§63.3164 through 63.3166; supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limits in §63.3091(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.3168; and documentation of whether you developed and implemented the work practice plans required by §63.3094(b) and (c).

(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 (either a previous stack test or a previous panel test) or control device. You are not required to conduct an initial test to determine transfer efficiency if you receive approval to use the results of a test that has been previously conducted. 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.

### **§ 63.3161 How do I demonstrate initial compliance?**

(a) You must meet all of the requirements of this section to demonstrate initial compliance. To demonstrate initial compliance, the organic HAP emissions from the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) must meet the applicable emission limitation in §63.3090(a) or §63.3091(a).

(b) *Compliance with operating limits.* Except as provided in §63.3160(a)(4), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by §63.3093, using the procedures specified in §§63.3167 and 63.3168.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plans required by §63.3094(b) and (c) during the initial compliance period, as specified in §63.3130.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (o) of this section to demonstrate compliance with the applicable emission limit in §63.3090(a) or §63.3091(a). You may also use the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22) in making this demonstration.

(e) *Determine the mass fraction of organic HAP, density, and volume used.* Follow the procedures specified in §63.3151(a) through (c) to determine the mass fraction of organic HAP and the density and volume of each coating and thinner used during each month. For electrodeposition primer operations, the mass

fraction of organic HAP, density, and volume used must be determined for each material added to the tank or system during each month.

(f) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liter of coating solids per liter of coating) for each coating used during the compliance period by a test or by information provided by the supplier or the manufacturer of the material, as specified in paragraphs (f)(1) and (2) of this section. For electrodeposition primer operations, the volume fraction of solids must be determined for each material added to the tank or system during each month. If test results obtained according to paragraph (f)(1) of this section do not agree with the information obtained under paragraph (f)(2) of this section, the test results will take precedence unless, after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's 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) *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.

(g) *Determine the transfer efficiency for each coating.* You must determine the transfer efficiency for each primer-surfacer and topcoat coating, and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) using ASTM Method D5066–91 (Reapproved 2001), "Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis" (incorporated by reference, see §63.14), or the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). You may conduct transfer efficiency testing on representative coatings and for representative spray booths as described in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). You may assume 100 percent transfer efficiency for electrodeposition primer coatings, glass bonding primers, and glass bonding adhesives. For final repair coatings, you may assume 40 percent transfer efficiency for air atomized spray and 55 percent transfer efficiency for electrostatic spray and high volume, low pressure spray. For blackout, chip resistant edge primer, interior color, in-line repair, lower body anti-chip coatings, or underbody anti-chip coatings, you may assume 40 percent transfer efficiency for air atomized spray, 55 percent transfer efficiency for electrostatic spray and high volume-low pressure spray, and 80 percent transfer efficiency for airless spray.

(h) *Calculate the total mass of organic HAP emissions before add-on controls.* Calculate the total mass of organic HAP emissions before consideration of add-on controls from all coatings and thinners used during each month in the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) using Equation 1 of this section:

$$H_{BC} = A + B \quad (\text{Eq. 1})$$

Where:

$H_{BC}$  = Total mass of organic HAP emissions before consideration of add-on controls 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 used during the month, kg, as calculated in Equation 1B of this section.

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

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

Where:

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

Vol<sub>c,i</sub> = Total volume of coating, i, used during the month, liters.

D<sub>c,i</sub> = Density of coating, i, kg coating per liter coating.

W<sub>c,i</sub> = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

m = Number of different coatings used during the month.

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

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

Where:

B = Total mass of organic HAP in the thinners used during the month, kg.

Vol<sub>t,j</sub> = Total volume of thinner, j, used during the month, liters.

D<sub>t,j</sub> = Density of thinner, j, kg per liter.

W<sub>t,j</sub> = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

n = Number of different thinners used during the month.

(i) 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 captured by the emission capture system and destroyed or removed by the add-on control device. Use the procedures in paragraph (j) 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 (k) of this section to calculate the organic HAP emission reduction.

(j) Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balances. 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, calculate the mass of organic HAP emission reduction for the controlled coating operation, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, during the month using Equation 2 of this section. The calculation of mass of organic HAP emission reduction for the controlled coating operation during the month applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings and thinners that are used in the coating operation served by the emission capture system and add-on control device during each month. Except as provided in paragraph (p) of this section, for any period of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement of the capture system or control device serving the controlled coating operation occurred, you must assume zero efficiency for the emission capture system and add-on control device. Equation 2 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.

$$H_{Cn} = (A_C + B_C - A_{unc} - B_{unc}) \left( \frac{CE}{100} \times \frac{DRE}{100} \right) \quad (Eq. 2)$$

Where:

$H_{Cn}$  = Mass of organic HAP emission reduction, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, 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 2A of this section.

$B_C$  = Total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg, as calculated in Equation 2B of this section.

$A_{unc}$  = Total mass of organic HAP in the coatings used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg, as calculated in Equation 2C of this section.

$B_{unc}$  = Total mass of organic HAP in the thinners used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg, as calculated in Equation 2D 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 §§63.3164 and 63.3165 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 §§63.3164 and 63.3166 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, using Equation 2A of this section.

$$A_c = \sum_{i=1}^m (Vol_{c,i})(D_{c,i})(W_{c,i}) \quad (Eq. 2A)$$

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.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners used in the controlled coating operation, kg, using Equation 2B of this section.

$$B_c = \sum_{j=1}^n (Vol_{t,j})(D_{t,j})(W_{t,j}) \quad (Eq. 2B)$$

Where:

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

$Vol_{t,j}$  = Total volume of thinner, j, used during the month, liters.

$D_{t,j}$  = Density of thinner, j, kg per liter.

$W_{t,j}$  = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

(3) Calculate the mass of organic HAP in the coatings used in the controlled coating operation during deviations specified in §63.3163(c) and (d), using Equation 2C of this section:

$$A_{unc} = \sum_{i=1}^m (VOLD_i)(D_i)(W_i) \quad (Eq. 2C)$$

Where:

$A_{unc}$  = Total mass of organic HAP in the coatings used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving

the controlled coating operation occurred for the controlled coating operation during the month, kg.

VOLD<sub>i</sub>= Total volume of coating, i, used in the controlled coating operation during deviations, liters.

D<sub>i</sub>= Density of coating, i, kg per liter.

W<sub>i</sub>= Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

m = Number of different coatings.

(4) Calculate the mass of organic HAP in the thinners used in the controlled coating operation during deviations specified in §63.3163(c) and (d), using Equation 2D of this section:

$$B_{unc} = \sum_{j=1}^n (VOLD_j)(D_j)(W_j) \quad (Eq. 2D)$$

Where:

B<sub>unc</sub>= Total mass of organic HAP in the thinners used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg.

VOLD<sub>j</sub>= Total volume of thinner, j, used in the controlled coating operation during deviations, liters.

D<sub>j</sub>= Density of thinner, j, kg per liter.

W<sub>j</sub>= Mass fraction of organic HAP in thinner, j, kg organic HAP per kg coating.

n = Number of different thinners.

(k) *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 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 by applying the volatile organic matter collection and recovery efficiency to the mass of organic HAP contained in the coatings and thinners 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 (k)(1) through (6) of this section. Calculate the mass of organic HAP emission reduction by the solvent recovery system as specified in paragraph (k)(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, kg, based on measurement with the device required in paragraph (k)(1) of this section.

(3) Determine the mass fraction of volatile organic matter for each coating and thinner 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 govern unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

(4) Determine the density of each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to §63.3151(b).

(5) Measure the volume of each coating and thinner 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 3 of this section:

$$R_v = 100 \frac{M_{VR}}{\sum_{i=1}^m Vol_i D_i WV_{c,i} + \sum_{j=1}^n Vol_j D_j WV_{t,j}} \quad (Eq. 3)$$

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.

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

$D_j$  = Density of thinner, j, kg per liter.

$WV_{t,j}$  = Mass fraction of volatile organic matter for thinner, j, kg volatile organic matter per kg thinner.

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

$n$  = Number of different thinners 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 4 of this section:

$$H_{CSR} = (A_{CSR} + B_{CSR}) \left( \frac{R_V}{100} \right) \quad (Eq. 4)$$

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 4A of this section.

$B_{CSR}$  = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 4B of this section.

$R_V$  = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 3 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 4A of this section.

$$A_{CSR} = \sum_{i=1}^m (Vol_{c,i}) (D_{c,i}) (W_{c,i}) \quad (Eq. 4A)$$

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 per kg.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, using Equation 4B of this section.

$$B_{CSR} = \sum_{j=1}^n (Vol_{t,j}) (D_{t,j}) (W_{t,j}) \quad (Eq. 4B)$$

Where:

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

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

$D_{t,j}$  = Density of thinner, j, kg per liter.

$W_{t,j}$  = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

(l) Calculate the total volume of coating solids deposited. Determine the total volume of coating solids deposited, liters, in the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems used in coating operations added to the affected source pursuant to §63.3082(c) using Equation 5 of this section:

$$V_{s,dep} = \sum_{i=1}^m (Vol_{c,i}) (V_{s,i}) (TE_{c,i}) \quad (Eq. 5)$$

Where:

$V_{s,dep}$  = Total volume of coating solids deposited 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 §63.3161(f).

$TE_{c,i}$  = Transfer efficiency of coating, i, determined according to §63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60.

M = Number of coatings used during the month.

(m) Calculate the mass of organic HAP emissions for each month. Determine the mass of organic HAP emissions, kg, during each month, using Equation 6 of this section.

$$H_{HAP} = H_{BC} - \sum_{i=1}^q (H_{CN,i}) - \sum_{j=1}^r (H_{CSR,j}) - \sum_{k=1}^q \sum_{m=1}^{Sk} (H_{DFV,k,m}) \quad (Eq. 6)$$

Where:

$H_{HAP}$  = Total mass of organic HAP emissions for the month, kg.

$H_{BC}$  = Total mass of organic HAP emissions before add-on controls from all the coatings and thinners used during the month, kg, determined according to paragraph (h) of this section.

$H_{CN,i}$  = Total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any

CPMS requirement for the capture system or control device serving the controlled coating operation occurred, for the controlled coating operation during the month, from Equation 2 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 4 of this section.

$H_{DEV,k,m}$  = Mass of organic HAP emission reduction, based on the capture system and control device efficiency approved under paragraph (p) of this section for period of deviation, m, for controlled coating operation, k, kg, as determined using Equation 8 of this section.

q = Number of controlled coating operations not using a liquid-liquid material balance.

r = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

$S_k$  = Number of periods of deviation in the month for which non-zero capture and control device efficiencies have been approved for controlled coating operation, k.

(n) Calculate the organic HAP emission rate for the month. Determine the organic HAP emission rate for the month, kg organic HAP per liter coating solids deposited, using Equation 7 of this section:

$$H_{rate} = (H_{HAP}) / (V_{sdep}) \quad (Eq. 7)$$

Where:

$H_{rate}$  = Organic HAP emission rate for the month compliance period, kg organic HAP per liter coating solids deposited.

$H_{HAP}$  = Mass of organic HAP emissions for the month, kg, determined according to Equation 6 of this section.

$V_{sdep}$  = Total volume of coating solids deposited during the month, liters, from Equation 5 of this section.

(o) *Compliance demonstration.* To demonstrate initial compliance, the organic HAP emissions from the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) must be less than or equal to the applicable emission limitation in §63.3090(a) or §63.3091(a). You must keep all records as required by §§63.3130 and 63.3131. As part of the Notification of Compliance Status required by §63.3110, you must 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 §63.3090(a) or §63.3091(a) and you achieved the operating limits required by §63.3093 and the work practice standards required by §63.3094.

(p) You may request approval from the Administrator to use non-zero capture efficiencies and add-on control device efficiencies for any period of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation occurred.

(1) If you have manually collected parameter data indicating that a capture system or add-on control device was operating normally during a CPMS malfunction, a CPMS out-of-control period, or associated repair, then these data may be used to support and document your request to use the normal capture efficiency or add-on control device efficiency for that period of deviation.

(2) If you have data indicating the actual performance of a capture system or add-on control device ( e.g., capture efficiency measured at a reduced flow rate or add-on control device efficiency measured at a reduced thermal oxidizer temperature) during a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation, then these data may be used to support and document your request to use these values for that period of deviation.

(3) The organic HAP emission reduction achieved during each period of deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation for which the Administrator has approved the use of non-zero capture efficiency and add-on control device efficiency values is calculated using Equation 8 of this section.

$$H_{DEV} = (A_{DEV} + B_{DEV}) \left( \frac{CE_{DEV}}{100} \right) \left( \frac{DRE_{DEV}}{100} \right) \quad (Eq. 8)$$

Where:

$H_{DEV}$  = Mass of organic HAP emission reduction achieved during a period of deviation for the controlled coating operation, kg.

$A_{DEV}$  = Total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation, kg, as calculated in Equation 8A of this section.

$B_{DEV}$  = Total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation, kg, as calculated in Equation 8B of this section.

$CE_{DEV}$  = Capture efficiency of the emission capture system vented to the add-on control device, approved for the period of deviation, percent.

$DRE_{DEV}$  = Organic HAP destruction or removal efficiency of the add-on control device approved for the period of deviation, percent.

(4) Calculate the total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation using equation 8A of this section:

$$A_{DEV} = \sum_{i=1}^m (VOL_{CDEV,i}) (D_{c,i}) (W_{c,i}) \quad (Eq. 8A)$$

Where:

$A_{DEV}$  = Total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation, kg.

$VOL_{CDEV,i}$  = total volume of coating, i, used in the controlled coating operation during the period of deviation, 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.

m = Number of different coatings used.

(5) Calculate the total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation using equation 8B of this section:

$$B_{DEV} = \sum_{j=1}^n (VOL_{TDEV,j}) (D_{t,j}) (W_{t,j}) \quad (Eq. 8B)$$

Where:

$B_{DEV}$  = Total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation, kg.

$VOL_{TDEV,j}$  = Total volume of thinner, j, used in the controlled coating operation during the period of deviation, liters.

$D_{t,j}$  = Density of thinner, j, kg per liter.

$W_{t,j}$  = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

[69 FR 22623, Apr. 26, 2004, as amended at 72 FR 20233, Apr. 24, 2007]

### § 63.3162 [Reserved]

### § 63.3163 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance with the applicable emission limit in §63.3090(a) or §63.3091(a), the organic HAP emission rate for each compliance period, determined according to the procedures in §63.3161, must be equal to or less than the applicable emission limit in §63.3090(a) or §63.3091(a). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in §63.3160 is a compliance period consisting of that month. You must perform the calculations in §63.3161 on a monthly basis.

(b) If the organic HAP emission rate for any 1 month compliance period exceeded the applicable emission limit in §63.3090(a) or §63.3091(a), this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(6).

(c) You must demonstrate continuous compliance with each operating limit required by §63.3093 that applies to you, as specified in Table 1 to this subpart.

(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 §§63.3110(c)(6) and 63.3120(a)(6).

(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 except as provided in §63.3161(p).

(d) You must meet the requirements for bypass lines in §63.3168(b) for control devices other than solvent recovery systems for which you 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 §63.3110(c)(6) and 63.3120(a)(6). For the purposes of completing the compliance calculations specified in §63.3161(k), you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation.

(e) You must demonstrate continuous compliance with the work practice standards in §63.3094. If you did not develop a work practice plan, if you did not implement the plan, or if you did not keep the records required by §63.3130(n), this is a deviation from the work practice standards that must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(6).

(f) If there were no deviations from the emission limitations, submit a statement as part of the semiannual compliance report 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 §63.3090(a) or §63.3091(a), and you achieved the operating limits required by §63.3093 and the work practice standards required by §63.3094 during each compliance period.

(g) [Reserved]

(h) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The Administrator will determine whether deviations that occur during a period you identify as a startup, shutdown, or malfunction are violations according to the provisions in §63.6(e).

(i) [Reserved]

(j) You must maintain records as specified in §§63.3130 and 63.3131.

[69 FR 22623, April 26, 2004, as amended at 71 FR 20464, Apr. 20, 2006]

#### **§ 63.3164 What are the general requirements for performance tests?**

(a) You must conduct each performance test required by §63.3160 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 §63.3165. You must conduct each performance test of an add-on control device according to the requirements in §63.3166.

#### **§ 63.3165 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 §63.3160. For purposes of this subpart, a spray booth air seal is not considered a natural draft opening in a PTE or a temporary total enclosure provided you demonstrate that the direction of air movement across the interface between the spray booth air seal and the spray booth is into the spray booth. For purposes of this subpart, a bake oven air seal is not considered a natural draft opening in a PTE or a temporary total enclosure provided you demonstrate that the direction of air movement across the interface between the bake oven air seal and the bake oven is into the bake oven. You may use lightweight strips of fabric or paper, or smoke tubes to make such demonstrations as part of showing that your capture system is a PTE or conducting a capture efficiency test using a temporary total enclosure. You cannot count air flowing from a spray booth air seal into a spray booth as air flowing through a natural draft opening into a PTE or into a temporary total enclosure unless you elect to treat that spray booth air seal as a natural draft opening. You cannot count air flowing from a bake oven air seal into a bake oven as air flowing through a natural draft opening into a PTE or into a temporary total enclosure unless you elect to treat that bake oven air seal as a natural draft opening.

(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 and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off and coating curing and drying 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 five procedures described in paragraphs (c) through (g) 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 production, which includes surface preparation activities and drying or 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 and thinners are applied, and all areas where emissions from these applied coatings and thinners 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 F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating and thinner used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term volatile organic compounds (VOC) in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings and thinners used in the coating operation during each capture efficiency test run.

$$TVH_{used} = \sum_{i=1}^n (TVH_i)(Vol_i)(D_i) \quad (Eq. 1)$$

Where:

TVH<sub>i</sub>= Mass fraction of TVH in coating or thinner, i, used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol<sub>i</sub>= Total volume of coating or thinner, i, used in the coating operation during the capture efficiency test run, liters.

D<sub>i</sub>= Density of coating or thinner, i, kg material per liter material.

n = Number of different coatings and thinners used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or E 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 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E 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:

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \quad (Eq. 2)$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH<sub>used</sub>= Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

TVH<sub>uncaptured</sub>= 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 and thinners are applied, and all areas where emissions from these applied coatings and thinners 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 C 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 C 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 or sequentially measured in each duct, and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or E 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 if the enclosure is a temporary total enclosure.

(ii) Use Method 204E 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:

$$CE = \frac{TVH_{\text{captured}}}{(TVH_{\text{captured}} + TVH_{\text{uncaptured}})} \times 100 \quad (\text{Eq. 3})$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH<sub>captured</sub> = 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<sub>uncaptured</sub> = 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) *Panel testing to determine the capture efficiency of flash-off or bake oven emissions.* You may conduct panel testing to determine the capture efficiency of flash-off or bake oven emissions using ASTM Method D5087-02, "Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)" (incorporated by reference, see §63.14), ASTM Method D6266-00a, "Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)" (incorporated by reference, see §63.14), or the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). You may conduct panel testing on representative coatings as described in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). The results of these panel testing procedures are in units of mass of VOC per volume of coating solids deposited and must be converted to a percent value for use in this subpart. If you panel test representative coatings, then you may convert the panel test result for each representative coating either to a unique percent capture efficiency for each coating grouped with that representative coating by using coating specific values for the volume of coating solids deposited per volume of coating used, mass of VOC per volume of coating, volume fraction solids, transfer efficiency, density and mass fraction VOC in Equations 4 through 6 of this section; or to a composite percent capture efficiency for the group of coatings by using composite values for the group of coatings for the volume of coating solids deposited per volume of coating used and for the mass of VOC per volume of coating, and average values for the group of coatings for volume fraction solids, transfer efficiency, density and mass fraction VOC in Equations 4 through 6 of this section. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency for that coating by using coating specific values for the volume of coating solids deposited per volume of coating used, mass of VOC per volume of coating, volume fraction solids, transfer efficiency, density, and mass fraction VOC in Equations 4 through 6 of this section. Panel test results expressed in units of mass of VOC per volume of coating solids deposited must be converted to percent capture efficiency using Equation 4 of this section. (An alternative for using panel test results expressed in units of mass of VOC per mass of coating solids deposited is presented in paragraph (e)(3) of this section.)

$$CE_i = (P_{v,i}) (V_{sdep,i}) (100) / (VOC_i) \quad (Eq\ 4)$$

Where:

$CE_i$ = Capture efficiency for coating, i, or for the group of coatings, including coating, i, for the flash-off area or bake oven for which the panel test is conducted, percent.

$P_{v,i}$ = Panel test result for coating, i, or for the coating representing coating, i, in the panel test, kg of VOC per liter of coating solids deposited.

$V_{sdep,i}$ = Volume of coating solids deposited per volume of coating used for coating, i, or composite volume of coating solids deposited per volume of coating used for the group of coatings including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, liter of coating solids deposited per liter of coating used, from Equation 5 of this section.

$VOC_i$ = Mass of VOC per volume of coating for coating, i, or composite mass of VOC per volume of coating for the group of coatings including coating, i, kg per liter, from Equation 6 of this section.

(1) Calculate the volume of coating solids deposited per volume of coating used for coating, i, or the composite volume of coating solids deposited per volume of coating used for the group of coatings including

coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted using Equation 5 of this section:

$$V_{sdep,i} = (V_{s,i})(TE_{c,i}) \quad (Eq. 5)$$

Where:

$V_{sdep,i}$ = Volume of coating solids deposited per volume of coating used for coating, i, or composite volume of coating solids deposited per volume of coating used for the group of coatings including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, liter of coating solids deposited per liter of coating used.

$V_{s,i}$ = Volume fraction of coating solids for coating, i, or average volume fraction of coating solids for the group of coatings including coating, i, liter coating solids per liter coating, determined according to §63.3161(f).

$TE_{c,i}$ = Transfer efficiency of coating, i, or average transfer efficiency for the group of coatings including coating, i, in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted determined according to §63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60. (Transfer efficiency also may be determined by testing representative coatings. The same coating groupings may be appropriate for both transfer efficiency testing and panel testing. In this case, all of the coatings in a panel test grouping would have the same transfer efficiency.)

(2) Calculate the mass of VOC per volume of coating for coating, i, or the composite mass of VOC per volume of coating for the group of coatings including coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg, using Equation 6 of this section:

$$VOC_i = (D_{c,i})(W_{voc,c,i}) \quad (Eq. 6)$$

Where:

$VOC_i$ = Mass of VOC per volume of coating for coating, i, or composite mass of VOC per volume of coating for the group of coatings including coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg VOC per liter coating.

$D_{c,i}$ = Density of coating, i, or average density of the group of coatings, including coating, i, kg coating per liter coating, density determined according to §63.3151(b).

$W_{voc,c,i}$ = Mass fraction of VOC in coating, i, or average mass fraction of VOC for the group of coatings, including coating, i, kg VOC per kg coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in Section 9 of "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).

(3) As an alternative, you may choose to express the results of your panel tests in units of mass of VOC per mass of coating solids deposited and convert such results to a percent using Equation 7 of this section. If you panel test representative coatings, then you may convert the panel test result for each representative coating either to a unique percent capture efficiency for each coating grouped with that representative coating by using coating specific values for the mass of coating solids deposited per mass of coating used,

mass fraction VOC, transfer efficiency, and mass fraction solids in Equations 7 and 8 of this section; or to a composite percent capture efficiency for the group of coatings by using composite values for the group of coatings for the mass of coating solids deposited per mass of coating used and average values for the mass of VOC per volume of coating, average values for the group of coatings for mass fraction VOC, transfer efficiency, and mass fraction solids in Equations 7 and 8 of this section. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency for that coating by using coating specific values for the mass of coating solids deposited per mass of coating used, mass fraction VOC, transfer efficiency, and mass fraction solids in Equations 7 and 8 of this section. Panel test results expressed in units of mass of VOC per mass of coating solids deposited must be converted to percent capture efficiency using Equation 7 of this section:

$$CE_i = \left( P_{m,i} \right) \left( W_{sdep,i} \right) (100) / \left( W_{voc,c,i} \right) \quad (\text{Eq. 7})$$

Where:

$CE_i$  = Capture efficiency for coating, i, or for the group of coatings including coating, i, for the flash-off area or bake oven for which the panel test is conducted, percent.

$P_{m,i}$  = Panel test result for coating, i, or for the coating representing coating, i, in the panel test, kg of VOC per kg of coating solids deposited.

$W_{sdep,i}$  = Mass of coating solids deposited per mass of coating used for coating, i, or composite mass of coating solids deposited per mass of coating used for the group of coatings, including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg of solids deposited per kg of coating used, from Equation 8 of this section.

$W_{voc,c,i}$  = Mass fraction of VOC in coating, i, or average mass fraction of VOC for the group of coatings, including coating, i, kg VOC per kg coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in Section 9 of "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).

(4) Calculate the mass of coating solids deposited per mass of coating used for each coating or the composite mass of coating solids deposited per mass of coating used for each group of coatings used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted using Equation 8 of this section:

$$W_{sdep,i} = \left( W_{s,i} \right) \left( TE_{c,i} \right) \quad (\text{Eq. 8})$$

Where:

$W_{sdep,i}$  = Mass of coating solids deposited per mass of coating used for coating, i, or composite mass of coating solids deposited per mass of coating used for the group of coatings including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg coating solids deposited per kg coating used.

$W_{s,i}$  = Mass fraction of coating solids for coating, i, or average mass fraction of coating solids for the group of coatings including coating, i, kg coating solids per kg coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).

$TE_{c,i}$  = Transfer efficiency of coating,  $i$ , or average transfer efficiency for the group of coatings including coating,  $i$ , in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted determined according to §63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60. (Transfer efficiency also may be determined by testing representative coatings. The same coating groupings may be appropriate used for both transfer efficiency testing and panel testing. In this case, all of the coatings in a panel test grouping would have the same transfer efficiency.)

(f) *Alternative capture efficiency procedure.* As an alternative to the procedures specified in paragraphs (c) through (e) and (g) of this section, 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.

(g) *Panel testing to determine the capture efficiency of spray booth emissions from solvent-borne coatings.* You may conduct panel testing to determine the capture efficiency of spray booth emissions from solvent-borne coatings using the procedure in appendix A to this subpart.

[69 FR 22623, Apr. 26, 2004, as amended at 72 FR 20234, Apr. 24, 2007]

### **§ 63.3166 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 §63.3160. You must conduct three test runs as specified in §63.7(e)(3), and each test run must last at least 1 hour.

(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. The ANSI/ASME PTC 19.10–1981, “Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]” (incorporated by reference, see §63.14), may be used as an alternative to Method 3B.

(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, as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements.

(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 by volume (ppmv) 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 ppmv or less at the control device outlet.

(3) Use Method 25A if the add-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 of each device. For example, if one add-on control device is a concentrator with an outlet 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 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.

$$M_f = Q_{sd} C_c (12)(0.0416)(10^{-6}) \quad (\text{Eq. 1})$$

Where:

$M_f$  = Total gaseous organic emissions mass flow rate, kg per hour (kg/h).

$C_c$  = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, 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 per hour (dscm/h).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter ( $\text{mol}/\text{m}^3$ ) (@ 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:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} (100) \quad (\text{Eq. 2})$$

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.

**§ 63.3167 How do I establish the add-on control device operating limits during the performance test?**

During the performance test required by §63.3160 and described in §§63.3164 and 63.3166, you must establish the operating limits required by §63.3093 according to this section, unless you have received approval for alternative monitoring and operating limits under §63.8(f) as specified in §63.3093.

(a) *Thermal oxidizers*. If your add-on control device is a thermal oxidizer, establish the operating limit according to paragraphs (a)(1) through (3) 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 all valid 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 3-hour average operating limit for your thermal oxidizer.

(3) As an alternative, if the latest operating permit issued before April 26, 2007, for the thermal oxidizer at your facility contains recordkeeping and reporting requirements for the combustion temperature that are consistent with the requirements for thermal oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for the combustion temperature for each such thermal oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average combustion temperature during the performance test of that thermal oxidizer. If you do not have an operating permit for the thermal oxidizer at your facility and the latest construction permit issued before April 26, 2007, for the thermal oxidizer at your facility contains recordkeeping and reporting requirements for the combustion temperature that are consistent with the requirements for thermal oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for the combustion temperature for each such thermal oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average combustion temperature during the performance test of that thermal oxidizer. If you use 28 degrees Celsius (50 degrees Fahrenheit) below the combustion temperature maintained during the performance test as the minimum operating limit for a thermal oxidizer, then you must keep the combustion temperature set point on that thermal oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that thermal oxidizer and the average combustion temperature maintained during the performance test for that 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) through (3) or paragraphs (b)(4) through (6) of this section.

(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 all valid 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. The minimum 3-hour average operating limits for your catalytic oxidizer are the average temperature just before the catalyst bed maintained during the performance test of that catalytic oxidizer and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test of that catalytic oxidizer, except during periods of low production, the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. A low production period is when production is less than 80 percent of production rate during the performance test of that catalytic oxidizer.

(3) As an alternative, if the latest operating permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limits for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test for that catalytic oxidizer, except during periods of low production the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. If you do not have an operating permit for the catalytic oxidizer at your facility and the latest

construction permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limits for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test for that catalytic oxidizer, except during periods of low production the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. A low production period is when production is less than 80 percent of production rate during the performance test. If you use 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test as the minimum operating limits for a catalytic oxidizer, then you must keep the set point for the temperature just before the catalyst bed on that catalytic oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that catalytic oxidizer and the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer.

(4) As an alternative to monitoring the temperature difference across the catalyst bed, you may 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)(6) 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 all valid 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.

(5) If the latest operating permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer. If you do not have an operating permit for the catalytic oxidizer at your facility and the latest construction permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer. If you use 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test as the minimum operating limit for a catalytic oxidizer, then you must keep the set point for the temperature just before the catalyst bed on that catalytic oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that catalytic oxidizer and the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer.

(6) 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)(4) or (b)(5) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(6)(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 §63.3166. 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 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 all valid 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 3-hour average 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) and (2) of this section.

(1) During the performance test, you must monitor and record the desorption gas inlet temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use all valid data collected during the performance test to calculate and record the average desorption gas inlet temperature. The minimum operating limit for the concentrator is 8 degrees Celsius (15 degrees Fahrenheit) below the average desorption gas inlet temperature maintained during the performance test for that concentrator. You must keep the set point for the desorption gas inlet temperature no lower than 6 degrees Celsius (10 degrees Fahrenheit) below the lower of that set point during the performance test for that concentrator and the average desorption gas inlet temperature maintained during the performance test for that concentrator.

(f) *Emission capture systems*. For each capture device that is not part of a PTE that meets the criteria of §63.3165(a) and that is not capturing emissions from a downdraft spray booth or from a flash-off area or bake oven associated with a downdraft spray booth, 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.

(1) During the capture efficiency determination required by §63.3160 and described in §§63.3164 and 63.3165, 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, using all valid data. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

[69 FR 22623, Apr. 26, 2004, as amended at 72 FR 20235, Apr. 24, 2007]

**§ 63.3168 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 (iv) 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.

(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 §63.3120.

(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 to treat desorbed concentrate streams from concentrators or carbon adsorbers), 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 a gas temperature monitor upstream of the catalyst bed. If you establish the operating parameters for a catalytic oxidizer under §63.3167(b)(1) through (3), you must also install a gas temperature monitor downstream of the catalyst bed. The temperature monitors must be in the gas stream immediately before and after the catalyst bed to measure the temperature difference across the bed. If you establish the operating parameters for a catalytic oxidizer under §63.3167(b)(4) through (6), you need not install a gas temperature monitor downstream of the catalyst bed.

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a)(1) through (6) and (c)(3)(i) through (vii) 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 4 degrees Fahrenheit or 0.75 percent of the temperature value, whichever is larger.

(iii) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(iv) If a gas temperature chart recorder is used, it must have a measurement sensitivity in the minor division of at least 20 degrees Fahrenheit.

(v) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, you must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 30 degrees Fahrenheit of the process temperature sensor reading.

(vi) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.

(vii) At least monthly, inspect components for integrity and electrical connections for continuity, oxidation, and galvanic corrosion.

(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) and (2) 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 have a measurement sensitivity of 1 percent of the temperature (as expressed in degrees Fahrenheit) recorded or 1 degree Fahrenheit, whichever is greater,

and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.

(e) *Condensers*. If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a)(1) through (6) and (e)(1) and (2) of this section.

(1) The gas temperature monitor must have a measurement sensitivity of 1 percent of the temperature (expressed in degrees Fahrenheit) recorded or 1 degree Fahrenheit, whichever is greater.

(2) The temperature monitor must provide a gas temperature record at least once every 15 minutes.

(f) *Concentrators*. If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a)(1) through (6) and (c)(3) 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.

(1) For each flow measurement device, you must meet the requirements in paragraphs (a)(1) through (6) and (g)(1)(i) through (iv) 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) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a)(1) through (6) and (g)(2)(i) through (vi) of this section.

(i) Locate the pressure tap(s) in a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) Check pressure tap pluggage daily.

(iv) Using an inclined manometer with a measurement sensitivity of 0.0002 inch water, check gauge calibration quarterly and transducer calibration monthly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(vi) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

**§ 63.3169 What are the requirements for a capture system or add-on control device which is not taken into account when demonstrating compliance with the applicable emission limitations?**

You may have capture systems or add-on control devices which you choose not to take into account when demonstrating compliance with the applicable emission limitations. For any such capture system or add-on control device, you are not required to comply with the requirements of §§63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, reporting, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, or removal efficiency. If, at a later date, you decide to take any such capture system or add-on control device into account when demonstrating compliance with the emission limitations, then at that time you must comply with the requirements of §§63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, and removal efficiency, as applicable, for that capture system or add-on control device.

[72 FR 20235, Apr. 24, 2007]

### **Compliance Requirements for the Combined Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Limitations and the Separate Electrodeposition Primer Emission Limitations**

#### **§ 63.3170 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 §63.3160.

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of §63.3160.

#### **§ 63.3171 How do I demonstrate initial compliance?**

(a) You must meet all of the requirements of this section to demonstrate initial compliance. To demonstrate initial compliance, the organic HAP emissions from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) must meet the applicable emission limitation in §63.3090(b) or §63.3091(b); and the organic HAP emissions from the electrodeposition primer operation must meet the applicable emissions limitations in §63.3092(a) or (b).

(b) *Compliance with operating limits.* Except as provided in §63.3160(a)(4), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by §63.3093, using the procedures specified in §§63.3167 and 63.3168.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plans required by §63.3094(b) and (c) during the initial compliance period, as specified in §63.3130.

(d) *Compliance with emission limits.* You must follow the procedures in §63.3161(e) through (n), excluding materials used in electrodeposition primer operations, to demonstrate compliance with the applicable emission limit in §63.3090(b) or §63.3091(b). You must follow the procedures in paragraph (e) of this section to demonstrate compliance with the emission limit in §63.3092(a), or paragraphs (f) through (g) of this section to demonstrate compliance with the emission limitations in §63.3092(b).

(e) *Determine the mass fraction of each organic HAP in each material used in the electrodeposition primer operation.* You must determine the mass fraction of each organic HAP for each material used in the electrodeposition primer operation during the compliance period by using one of the options in paragraphs (e)(1) through (3) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63)*. You may use Method 311 for determining the mass fraction of each organic HAP.

(2) *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.

(3) *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 (e)(1) and (2) 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. If there is a disagreement between such information and results of a test conducted according to paragraph (e)(1) or (2) of this section, then the test method results will take precedence unless after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

(f) *Capture of electrodeposition bake oven emissions*. You must show that the electrodeposition bake oven meets the criteria in sections 5.3 through 5.5 of Method 204 of appendix M to 40 CFR part 51 and directs all of the exhaust gases from the bake oven to an add-on control device. For purposes of this showing, an electrodeposition bake oven air seal is not considered a natural draft opening provided you demonstrate that the direction of air movement across the interface between the bake oven air seal and the bake oven is into the bake oven. You may use lightweight strips of fabric or paper, or smoke tubes to make such demonstrations. You cannot count air flowing from an electrodeposition bake oven air seal into an electrodeposition bake oven as air flowing through a natural draft opening unless you elect to treat that electrodeposition bake oven air seal as a natural draft opening.

(g) *Control of electrodeposition bake oven emissions*. Determine the efficiency of each control device on each electrodeposition bake oven using the procedures in §§63.3164 and 63.3166.

(h) *Compliance demonstration*. To demonstrate initial compliance, the organic HAP emissions from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) must meet the applicable emission limitation in §63.3090(b) or §63.3091(b); the organic HAP emissions from the electrodeposition primer operation must meet the applicable emissions limitations in §63.3092(a) or (b). You must keep all records as required by §§63.3130 and 63.3131. As part of the Notification of Compliance Status required by §63.3110, you must 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 from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) was less than or equal to the applicable emission limit in §63.3090(b) or §63.3091(b), and the organic HAP emissions from the electrodeposition primer operation met the applicable emissions limitations in §63.3092(a) or (b), and you achieved the operating limits required by §63.3093 and the work practice standards required by §63.3094.

[69 FR 22623, Apr. 26, 2004, as amended at 72 FR 20235, Apr. 24, 2007]

#### **§ 63.3172 [Reserved]**

#### **§ 63.3173 How do I demonstrate continuous compliance with the emission limitations?**

(a) To demonstrate continuous compliance with the applicable emission limit in §63.3090(b) or §63.3091(b), the organic HAP emission rate for each compliance period determined according to the procedures in §63.3171 must be equal to or less than the applicable emission limit in §63.3090(b) or §63.3091(b). A compliance period consists of 1 month. Each month after the end of the initial compliance period described

in §63.3170 is a compliance period consisting of that month. You must perform the calculations in §63.3171 on a monthly basis.

(b) If the organic HAP emission rate for any 1 month compliance period exceeded the applicable emission limit in §63.3090(b) or §63.3091(b), this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(6).

(c) You must meet the requirements of §63.3163(c) through (j).

**§ 63.3174 What are the requirements for a capture system or add-on control device which is not taken into account when demonstrating compliance with the applicable emission limitations?**

You may have capture systems or add-on control devices which you choose not to take into account when demonstrating compliance with the applicable emission limitations. For any such capture system or add-on control device, you are not required to comply with the requirements of §§63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, reporting, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, or removal efficiency. If, at a later date, you decide to take any such capture system or add-on control device into account when demonstrating compliance with the emission limitations, then at that time you must comply with the requirements of §§63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, reporting, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, and removal efficiency, as applicable, for that capture system or add-on control device.

[72 FR 20236, Apr. 24, 2007]

**Other Requirements and Information**

**§ 63.3175 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by us, 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 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 EPA 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 work practice standards in §63.3094 under §63.6(g).

(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.

**§ 63.3176 What definitions apply to this subpart?**

Terms used in this subpart are defined in the CAA, in the General Provisions of this part, and in this section as follows:

*Add-on control device* 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.

*Add-on control device efficiency* means the ratio of the emissions collected or destroyed by an add-on air pollution control device to the total emissions that are introduced into the control device, expressed as a percentage.

*Adhesive* means any chemical substance that is applied for the purpose of bonding two surfaces together.

*Adhesive and sealer material* means adhesives, sealers and thinners added to adhesives or sealers.

*Anti-chip coating* means a specialty type of coating designed to reduce stone chipping damage. Anti-chip coating may be applied to broad areas of the vehicle or to selected vehicle surfaces that are most vulnerable to impingement by stones and other road debris. Anti-chip coating is typically applied after the *electrodeposition primer* and before the *topcoat*. Anti-chip coating is a type of *primer-surfacer*.

*Automobile* means a motor vehicle designed to carry up to eight passengers, excluding vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property. See also *Light-duty truck*.

*Automobile and light-duty truck assembly plant* means a facility which assembles automobiles or light-duty trucks, including coating facilities and processes.

*Bake oven air seal* means an entry or entry vestibule to or an exit or exit vestibule from a bake oven which isolates the bake oven from the area immediately preceding (for an entry or entry vestibule) or immediately following (for an exit or exit vestibule) the bake oven. No significant VOC generating activity takes place in a bake oven air seal. Fresh air is supplied into a bake oven air seal and is then directed in part into the bake oven and in part into the area immediately preceding or immediately following the bake oven. All types of bake ovens, including ovens associated with spray booths and electrodeposition primer bake ovens, may have bake oven air seals.

*Basecoat/clearcoat* means a topcoat system applied to exterior and selected interior vehicle surfaces primarily to provide an aesthetically pleasing appearance and acceptable durability performance. It consists of a layer of pigmented basecoat color coating, followed directly by a layer of a clear or semitransparent coating. It may include multiple layers of color coats or tinted clear materials.

*Blackout coating* means a type of specialty coating applied on selected vehicle surfaces (including areas of the engine compartment visible through the grill, and window and pillar trim) to provide a cosmetic appearance. Typically black or dark gray color. Blackout coating may be included in either the primer-surfacer or topcoat operations.

*Body part* means exterior parts such as hoods, fenders, doors, roof, quarter panels, decklids, tail gates, and cargo beds. Body parts were traditionally made of sheet metal, but now are also made of plastic. Bumpers, fascia, and cladding are not body parts.

*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, both at the point of application and at subsequent points where emissions

from the coatings occur, such as flash-off, 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.

*Catalytic oxidizer* means a device for oxidizing pollutants or waste materials via flame and heat incorporating a catalyst to aid the combustion at lower operating temperature.

*Chip resistant edge primer* means an *anti-chip coating* applied to the leading edge of parts such as the hood or roof.

*Cleaning material* means a solvent used to remove contaminants and other materials such as dirt, grease, oil, and dried ( e.g., depainting) or wet coating from a substrate before or after coating application; or from equipment associated with a coating operation, such as spray booths, spray guns, 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, caulks, inks, adhesives, primers, deadeners, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.

*Coating operation* means equipment used to apply coating to a substrate (coating application) and to dry or cure the coating after application. A single coating operation always includes at least the point at which a coating is applied and all subsequent points in the affected source where organic HAP emissions from that coating occur. There may be multiple coating operations in an affected source. Coating application with hand-held nonrefillable aerosol containers, touchup bottles, touchup markers, marking pens, or pinstripping equipment is not a coating operation for the purposes of this subpart. The application of temporary materials such as protective oils and "travel waxes" that are designed to be removed from the vehicle before it is delivered to a retail purchaser is not a coating operation for the purposes of this subpart.

*Coating solids* means the nonvolatile portion of the coating.

*Container* means a receptacle, such as a can, vessel, tote, or tank, in which coatings, solvents or cleaning materials are held, stored, mixed, or carried.

*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 a *capture system* and an *add-on control device* which are taken into account when demonstrating compliance with an emission limitation in this subpart.

*Day tank* means tank with agitation and pumping system used for mixing and continuous circulation of coatings from the paint storage area to the spray booth area of the paint shop.

*Deadener* means a specialty coating applied to selected vehicle surfaces primarily for the purpose of reducing the sound of road noise in the passenger compartment.

*Deadener material* means deadener and thinner added to deadener.

*Deposited solids* means the coating solids which remain on the substrate or object being painted.

*Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; 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 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. A deviation is not always a violation.

*Electrodeposition primer or electrocoating primer* means a process of applying a protective, corrosion-resistant waterborne primer on exterior and interior surfaces that provides thorough coverage of recessed areas. It is a dip coating method that uses an electrical field to apply or deposit the conductive coating onto the part. The object being painted acts as an electrode that is oppositely charged from the particles of paint in the dip tank. Also referred to as E-Coat, Uni-Prime, and ELPO Primer.

*Emission limitation* means an emission limit, operating limit, or work practice standard.

*Final repair* means the operations performed and coating(s) applied to completely-assembled motor vehicles or to parts that are not yet on a completely assembled motor vehicle to correct damage or imperfections in the coating. The curing of the coatings applied in these operations is accomplished at a lower temperature than that used for curing primer-surfacer and topcoat. This lower temperature cure avoids the need to send parts that are not yet on a completely assembled vehicle through the same type of curing process used for primer-surfacer and topcoat and is necessary to protect heat sensitive components on completely assembled motor vehicles.

*Flash-off area* means the portion of a coating process between the coating application station and the next coating application station or drying oven where solvent begins to evaporate from the coated vehicle.

*Glass bonding adhesive* means an adhesive used to bond windshield or other glass to an automobile or light-duty truck body.

*Glass bonding primer* means a primer applied to windshield or other glass, or to body openings to prepare the glass or body openings for the application of glass bonding adhesive, or the installation of adhesive bonded glass.

*Guide coat* means *Primer-surfacer* .

*In-line repair* means the operation performed and coating(s) applied to correct damage or imperfections in the topcoat on parts that are not yet on a completely assembled motor vehicle. The curing of the coatings applied in these operations is accomplished at essentially the same temperature as that used for curing the previously applied topcoat. Also referred to as high bake repair or high bake reprocess. In-line repair is considered part of the topcoat operation.

*Light-duty truck* means vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property with gross vehicle weight rating of 8,500 lbs or less.

*Lower body anti-chip coating* means an *anti-chip coating* applied to lower body surfaces such as rocker panels, valence panels, lower portions of doors, or lower portions of fenders.

*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 §§63.3151 and 63.3161. 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.

*Organic HAP content* means the mass of organic HAP per mass of coating material.

*Other motor vehicle* means a self-propelled vehicle designed for transporting persons or property on a street or highway that has a gross vehicle weight rating over 8,500 pounds. You may choose to make the coating of other motor vehicles subject to this subpart pursuant to §63.3082(c).

*Other motor vehicle assembly plant* means a facility which assembles other motor vehicles, including coating facilities and processes.

*Paint line* means a set of coating operations which includes a topcoat operation and, if present, includes electrodeposition primer, primer-surfacer, final repair, glass bonding primer and glass bonding adhesive operations in which the same new automobile or new light-duty truck bodies, or body parts for new automobiles, or new light-duty trucks are coated. The most typical paint line consists of a set of electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations in which the same new automobile or new light-duty truck bodies are coated.

*Paint shop* means the collection of all areas at the facility in which new automobile or new light-duty truck bodies, or body parts for new automobiles or new light-duty trucks are phosphated and coated (including application, flash-off, drying and curing of electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, glass bonding adhesive, deadener, adhesives and sealers); all coating operations added to the affected source pursuant to §63.3082(c); all areas at the facility in which substrates or equipment are cleaned relating to the coating of new automobile or new light-duty truck bodies, the coating of body parts for new automobiles or new light-duty trucks, or coating operations added to the affected source pursuant to §63.3082(c); and all areas at the facility used for storage, mixing, conveying and waste handling of coatings, thinners and cleaning materials related to the coating of new automobile or new light-duty truck bodies, the coating of body parts for new automobiles or new light-duty trucks, or coating operations added to the affected source pursuant to §63.3082(c). If there is no application of topcoat to new automobile or new light-duty truck bodies, or body parts for new automobiles or new light-duty trucks at the facility, then for purposes of this subpart the facility does not have a paint shop.

*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.

*Plastic or composites molding facility* means a facility where the purchase cost of capital equipment used for plastic or composites molding, including presses, tooling, and associated material processing and handling equipment, is greater than the purchase cost of capital equipment used for the surface coating of new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks.

*Primer-surfacer* means an intermediate protective coating applied on the *electrodeposition primer* and under the *topcoat*. Primer-surfacer provides adhesion, protection, and appearance properties to the total finish. Primer-surfacer may also be called *guide coat* or *surfacer*. *Anti-chip coating* is a type of primer-surfacer.

*Purge/clean operation* means the process of flushing paint out and cleaning the spray lines when changing colors or to remove undesired material. It includes use of air and solvents to clean the lines.

*Purge capture* means the capture of purge solvent and materials into a closed collection system immediately after purging the system. It is used to prevent the release of organic HAP emissions and includes the disposal of the captured purge material.

*Purge material* means the coating and associated cleaning solvent materials expelled from the spray system during the process of cleaning the spray lines and applicators when color-changing or to maintain the cleanliness of the spray system.

*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.

*Research or laboratory operations* means surface coating for which the primary purpose is research and development of new processes and products, that is conducted under the close supervision of technically

trained personnel, and that is not part of 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.

*Sealer* means a high solids, high viscosity material, generally, but not always, applied in the paint shop after the body has received an electrodeposition primer coating. The primary purpose of sealers is to fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment. Also referred to as sealants.

*Spray booth* means a ventilated structure housing automatic and/or manual spray application equipment for coating operations. Includes facilities for the capture and entrapment of particulate overspray.

*Spray booth air seal* means an entry or entry vestibule to or exit or exit vestibule from a spray booth which isolates the spray booth from the area immediately preceding (for an entry or entry vestibule) or immediately following (for an exit or exit vestibule) the spray booth. No coating application or other VOC generating activity takes place in a spray booth air seal. Fresh air is supplied into a spray booth air seal and is then directed in part into the spray booth and in part into the area immediately preceding or immediately following the spray booth.

*Startup, initial* means the first time equipment is used in a facility to produce a salable product.

*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."

*Surfacer* means *Primer-surfacer* .

*Tack-wipe* means solvent impregnated cloth used to remove dust from surfaces prior to application of coatings.

*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.

*Thermal oxidizer* means a device for oxidizing air pollutants or waste materials via flame and heat.

*Thinner* means an organic solvent that is added to a coating after the coating is received from the supplier.

*Topcoat* means the final coating system applied to provide the final color and/or a protective finish. The topcoat may be a monocoat color or basecoat/clearcoat system. In-line repair and two-tone are part of topcoat.

*Total volatile hydrocarbon (TVH)* means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through F 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.

*Touchup bottle* means a coating container with a volume of 0.25 liter or less used with a brush or other non-atomizing applicator.

*Transfer efficiency* means the ratio of the amount of coating solids deposited onto the surface of the object to the total amount of coating solids sprayed while applying the coating to the object.

*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.

*Underbody anti-chip coating* means an *anti-chip coating* applied to the underbody or wheel wells primarily for the purpose of protecting these areas of the vehicle from stone chipping.

*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 volume of nonvolatiles) to the volume of coating; liters of coating solids per liter of coating.

[69 FR 22623, Apr. 26, 2004, as amended at 71 FR 76927, Dec. 22, 2006; 72 FR 20236, Apr. 24, 2007]

**Table 1 to Subpart IIII of Part 63—Operating Limits for Capture Systems and Add-On Control Devices**

If you are required to comply with operating limits by §63.3093, you must comply with the applicable operating limits in the following table

<b>For the following device . . .</b>	<b>You must meet the following operating limit . . .</b>	<b>And you must demonstrate continuous compliance with the operating limit by</b>
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.3167(a)	i. Collecting the combustion temperature data according to §63.3168(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above 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 §63.3167(b); and either	i. Collecting the temperature data according to §63.3168(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature before 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 §63.3167(b)(2); or	i. Collecting the temperature data according to §63.3168(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit; or
	c. Develop and implement an inspection and maintenance plan according to §63.3167(b)(4)	i. Maintaining an up-to-date inspection 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 §63.3167(b)(4), 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 §63.3167(c)	i. Measuring the total regeneration desorbing gas ( e.g., steam or nitrogen) mass flow for each regeneration cycle according to §63.3168(d); and 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 §63.3167(c)	i. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to §63.3168(d); and 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 §63.3167(d)	i. Collecting the condenser outlet (product side) gas temperature according to §63.3168(e); ii. Reducing the data to 3-hour block averages; and 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 desorption gas inlet temperature in any 3-hour period must not fall below the limit established according to §63.3167(e)	i. Collecting the temperature data according to §63.3168(f); ii. Reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average temperature at or above the temperature limit.

<p>6. Emission capture system that is a PTE</p>	<p>a. The direction of the air flow at all times must be into the enclosure; and either  b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or  c. The pressure drop across the enclosure must be at least 0.007 inch water, as established in Method 204 of appendix M to 40 CFR part 51</p>	<p>i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.3168(g)(1) or the pressure drop across the enclosure according to §63.3168(g)(2); and  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.</p>
<p>7. Emission capture system that is not a PTE</p>	<p>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 §63.3167(f). This applies only to capture devices that are not part of a PTE that meets the criteria of §63.3165(a) and that are not capturing emissions from a downdraft spray booth or from a flashoff area or bake oven associated with a downdraft spray booth</p>	<p>i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to §63.3168(g);  ii. Reducing the data to 3-hour block averages; and  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 limit.</p>

[69 FR 22623, Apr. 26, 2004, as amended at 72 FR 20236, Apr. 24, 2007]

**Table 2 to Subpart III of Part 63—Applicability of General Provisions to Subpart III of Part 63**

You must comply with the applicable General Provisions requirements according to the following table

Citation	Subject	Applicable to subpart III	Explanation
§63.1(a)(1)–(12)	General Applicability	Yes	

§63.1(b)(1)–(3)	Initial Applicability Determination	Yes	Applicability to subpart III is also specified in §63.3081.
§63.1(c)(1)	Applicability After Standard Established	Yes	
§63.1(c)(2)	Applicability of Permit Program for Area Sources	No	Area sources are not subject to subpart III.
§63.1(c)(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 §63.3176.
§63.3(a)–(c)	Units and Abbreviations	Yes	
§63.4(a)(1)–(5)	Prohibited Activities	Yes	
§63.4(b)–(c)	Circumvention/Fragmentation	Yes	
§63.5(a)	Preconstruction Review Applicability	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 63.3083 specifies the compliance dates.
§63.6(c)(1)–(5)	Compliance Dates for Existing	Yes	Section 63.3083

	Sources		specifies the compliance dates.
§63.6(e)(1)–(2)	Operation and Maintenance	Yes	
§63.6(e)(3)	SSMP	Yes	Only sources using an add-on control device to comply with the standard must complete SSMP.
§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 standards.
§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 IIII does not establish opacity standards and does not require continuous opacity monitoring systems (COMS).
§63.6(i)	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 §§63.3164 and 63.3166.
§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 standards. Section 63.3160 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 standards.
§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 standards.
§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 standards. Additional requirements for monitoring are specified in §63.3168.
§63.8(a)(4)	Additional Monitoring Requirements	No	Subpart IIII does not have monitoring requirements for flares.
§63.8(b)	Conduct of Monitoring	Yes	
§63.8(c)(1)–(3)	Continuous Monitoring Systems	Yes	Applies only to

	(CMS) Operation and Maintenance		monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for CMS operations and maintenance are specified in §63.3168.
§63.8(c)(4)	CMS	No	Section 63.3168 specifies the requirements for the operation of CMS for capture systems and add-on control devices at sources using these to comply with the standards.
§63.89(c)(5)	COMS	No	Subpart IIII does not have opacity or visible emission standards.
§63.8(c)(6)	CMS Requirements	No	Section 63.3168 specifies the requirements for monitoring systems for capture systems and add-on control devices at sources using these to comply with the standards.
§63.8(c)(7)	CMS Out-of-Control Periods	No	
§63.8(c)(8)	CMS Out-of-Control Periods Reporting	No	Section 63.3120 requires reporting of CMS out-of-control periods.
§63.8(d)–(e)	Quality Control Program and CMS Performance Evaluation	No	Subpart IIII does not require the use of continuous emissions monitoring systems.
§63.8(f)(1)–(5)	Use of an Alternative Monitoring	Yes.	

	Method		
§63.8(f)(6)	Alternative to Relative Accuracy Test	No	Subpart IIII does not require the use of continuous emissions monitoring systems.
§63.8(g)(1)–(5)	Data Reduction	No	Sections 63.3167 and 63.3168 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 standards.
§63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart IIII does not have opacity or visible emission standards.
§63.9(g)(1)–(3)	Additional Notifications When Using CMS	No	Subpart IIII does not require the use of continuous emissions monitoring systems.
§63.9(h)	Notification of Compliance Status	Yes	Section 63.3110 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 §§63.3130 and 63.3131.

§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 capture systems and add-on control devices used to comply with the standards.
§63.10(b)(2)(vi)–(xi)		Yes.	
§63.10(b)(2)(xii)	Records	Yes.	
§63.10(b)(2)(xiii)		No	Subpart IIII 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 §63.3120(a)(6).
§63.10(c)(9)–(15)		Yes	
§63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in §63.3120.
§63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in §63.3120(b).
§63.10(d)(3)	Reporting Opacity or Visible Emissions Observations	No	Subpart IIII 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 capture systems and add-on control devices used to comply with the standards.
§63.10(e)(1)–(2)	Additional CMS Reports	No	Subpart IIII does not require the use of continuous emissions monitoring systems.
§63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	Section 63.3120(b) specifies the contents of periodic compliance reports.
§63.10(e)(4)	COMS Data Reports	No	Subpart IIII does not specify requirements for opacity or COMS.
§63.10(f)	Recordkeeping/Reporting Waiver	Yes	
§63.11	Control Device Requirements/Flares	No	Subpart IIII 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 IIII 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

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. Lignoines (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 <sup>®</sup> 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 IIII of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups<sup>a</sup>**

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 <sup>b</sup>	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic <sup>c</sup>	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

<sup>a</sup>Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart, and you only know whether the blend is aliphatic or aromatic.

<sup>b</sup> *E.g.* , 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.

<sup>c</sup> *E.g.* , Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

## Appendix A to Subpart IIII of Part 63—Determination of Capture Efficiency of Automobile and Light-Duty Truck Spray Booth Emissions From Solvent-borne Coatings Using Panel Testing

### 1.0 Applicability, Principle, and Summary of Procedure.

#### 1.1 Applicability.

This procedure applies to the determination of capture efficiency of automobile and light-duty truck spray booth emissions from solvent-borne coatings using panel testing. This procedure can be used to determine capture efficiency for partially controlled spray booths ( *e.g.*, automated spray zones controlled and manual spray zones not controlled) and for fully controlled spray booths.

#### 1.2 Principle.

1.2.1 The volatile organic compounds (VOC) associated with the coating solids deposited on a part (or panel) in a controlled spray booth zone (or group of contiguous controlled spray booth zones) partition themselves between the VOC that volatilize in the controlled spray booth zone (principally between the spray gun and the part) and the VOC that remain on the part (or panel) when the part (or panel) leaves the controlled spray booth zone. For solvent-borne coatings essentially all of the VOC associated with the coating solids deposited on a part (or panel) in a controlled spray booth zone that volatilize in the controlled spray booth zone pass through the waterwash and are exhausted from the controlled spray booth zone to the control device.

1.2.2 The VOC associated with the overspray coating solids in a controlled spray booth zone partition themselves between the VOC that volatilize in the controlled spray booth zone and the VOC that are still tied to the overspray coating solids when the overspray coating solids hit the waterwash. For solvent-borne coatings almost all of the VOC associated with the overspray coating solids that volatilize in the controlled spray booth zone pass through the waterwash and are exhausted from the controlled spray booth zone to the control device. The exact fate of the VOC still tied to the overspray coating solids when the overspray coating solids hit the waterwash is unknown. This procedure assumes that none of the VOC still tied to the overspray coating solids when the overspray coating solids hit the waterwash are captured and delivered to the control device. Much of this VOC may become entrained in the water along with the overspray coating solids. Most of the VOC that become entrained in the water along with the overspray coating solids leave the

water, but the point at which this VOC leave the water is unknown. Some of the VOC still tied to the overspray coating solids when the overspray coating solids hit the waterwash may pass through the waterwash and be exhausted from the controlled spray booth zone to the control device.

1.2.3 This procedure assumes that the portion of the VOC associated with the overspray coating solids in a controlled spray booth zone that volatilizes in the controlled spray booth zone, passes through the waterwash and is exhausted from the controlled spray booth zone to the control device is equal to the portion of the VOC associated with the coating solids deposited on a part (or panel) in that controlled spray booth zone that volatilizes in the controlled spray booth zone, passes through the waterwash, and is exhausted from the controlled spray booth zone to the control device. This assumption is equivalent to treating all of the coating solids sprayed in the controlled spray booth zone as if they are deposited coating solids ( *i.e.*, assuming 100 percent transfer efficiency) for purposes of using a panel test to determine spray booth capture efficiency.

1.2.4 This is a conservative (low) assumption for the portion of the VOC associated with the overspray coating solids in a controlled spray booth zone that volatilizes in the controlled spray booth zone. Thus, this assumption results in an underestimate of conservative capture efficiency. The overspray coating solids have more travel time and distance from the spray gun to the waterwash than the deposited coating solids have between the spray gun and the part (or panel). Therefore, the portion of the VOC associated with the overspray coating solids in a controlled spray booth zone that volatilizes in the controlled spray booth zone should be greater than the portion of the VOC associated with the coating solids deposited on a part (or panel) in that controlled spray booth zone that volatilizes in that controlled spray booth zone.

### 1.3 Summary of Procedure.

1.3.1 A panel test is performed to determine the mass of VOC that remains on the panel when the panel leaves a controlled spray booth zone. The total mass of VOC associated with the coating solids deposited on the panel is calculated.

1.3.2 The percent of the total VOC associated with the coating solids deposited on the panel in the controlled spray booth zone that remains on the panel when the panel leaves the controlled section of the spray booth is then calculated from the ratio of the two previously determined masses. The percent of the total VOC associated with the coating solids deposited on the panel in the controlled spray booth zone that is captured and delivered to the control device equals 100 minus this percentage. (The mass of VOC associated with the coating solids deposited on the panel which is volatilized and captured in the controlled spray booth zone equals the difference between the total mass of VOC associated with the coating solids deposited on the panel and the mass of VOC remaining with the coating solids deposited on the panel when the panel leaves the controlled spray booth zone.)

1.3.3 The percent of the total VOC associated with the coating sprayed in the controlled spray booth zone that is captured and delivered to the control device is assumed to be equal to the percent of the total VOC associated with the coating solids deposited on the panel in the controlled spray booth zone that is captured and delivered to the control device. The percent of the total VOC associated with the coating sprayed in the entire spray booth that is captured and delivered to the control device can be calculated by multiplying the percent of the total VOC associated with the coating sprayed in the controlled spray booth zone that is captured and delivered to the control device by the fraction of coating sprayed in the spray booth that is sprayed in the controlled spray booth zone.

## 2.0 Procedure.

2.1 You may conduct panel testing to determine the capture efficiency of spray booth emissions. You must follow the instructions and calculations in this appendix A, and use the panel testing procedures in ASTM Method D5087-02, "Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)" (incorporated by reference, see §63.14), or the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). You must weigh panels at the points described in section 2.5 of this appendix A and perform calculations as

described in sections 3 and 4 of this appendix A. You may conduct panel tests on the production paint line in your facility or in a laboratory simulation of the production paint line in your facility.

2.2 You may conduct panel testing on representative coatings as described in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). If you panel test representative coatings, then you may calculate either a unique percent capture efficiency value for each coating grouped with that representative coating, or a composite percent capture efficiency value for the group of coatings. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency value for that coating.

### 2.3 Identification of Controlled Spray Booth Zones.

You must identify each controlled spray booth zone or each group of contiguous controlled spray booth zones to be tested. (For example, a controlled bell zone immediately followed by a controlled robotic zone.) Separate panel tests are required for non-contiguous controlled spray booth zones. The flash zone between the last basecoat zone and the first clearcoat zone makes these zones non-contiguous.

### 2.4 Where to Apply Coating to the Panel.

If you are conducting a panel test for a single controlled spray booth zone, then you must apply coating to the panel only in that controlled spray booth zone. If you are conducting a panel test for a group of contiguous controlled spray booth zones, then you must apply coating to the panel only in that group of contiguous controlled spray booth zones.

### 2.5 How to Process and When to Weigh the Panel.

The instructions in this section pertain to panel testing of coating, *i*, or of the coating representing the group of coatings that includes coating, *i*.

2.5.1 You must weigh the blank panel. (Same as in bake oven panel test.) The mass of the blank panel is represented by  $W_{\text{blank},i}$ (grams).

2.5.2 Apply coating, *i*, or the coating representing coating, *i*, to the panel in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested (in plant test), or in a simulation of the controlled spray booth zone or group of contiguous controlled spray booth zones being tested (laboratory test).

2.5.3 Remove and weigh the wet panel as soon as the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested. (Different than bake oven panel test.) This weighing must be conducted quickly to avoid further evaporation of VOC. The mass of the wet panel is represented by  $W_{\text{wet},i}$ (grams).

2.5.4 Return the wet panel to the point in the coating process or simulation of the coating process where it was removed for weighing.

2.5.5 Allow the panel to travel through the rest of the coating process in the plant or laboratory simulation of the coating process. You must not apply any more coating to the panel after it leaves the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested. The rest of the coating process or simulation of the coating process consists of:

2.5.5.1 All of the spray booth zone(s) or simulation of all of the spray booth zone(s) located after the controlled spray booth zone or group of contiguous controlled spray booth zones being tested and before the bake oven where the coating applied to the panel is cured,

2.5.5.2 All of the flash-off area(s) or simulation of all of the flash-off area(s) located after the controlled spray booth zone or group of contiguous controlled spray booth zones being tested and before the bake oven where the coating applied to the panel is cured, and

2.5.5.3 The bake oven or simulation of the bake oven where the coating applied to the panel is cured.

2.5.6 After the panel exits the bake oven, you must cool and weigh the baked panel. (Same as in bake oven panel test.) The mass of the baked panel is represented by  $W_{baked,i}$ (grams).

### 3.0 Panel Calculations.

The instructions in this section pertain to panel testing of coating, i, or of the coating representing the group of coatings that includes coating, i.

3.1 The mass of coating solids (from coating, i, or from the coating representing coating, i, in the panel test) deposited on the panel equals the mass of the baked panel minus the mass of the blank panel as shown in Equation A-1.

$$W_{sdep,i} = W_{baked,i} - W_{blank,i} \quad (Eq. A-1)$$

Where:

$W_{sdep,i}$ = Mass of coating solids (from coating, i, or from the coating representing coating, i, in the panel test) deposited on the panel, grams.

3.2 The mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested equals the mass of the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested minus the mass of the baked panel as shown in Equation A-2.

$$W_{rem,i} = W_{wet,i} - W_{baked,i} \quad (Eq. A-2)$$

Where:

$W_{rem,i}$ = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, grams.

3.3 Calculate the mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested per mass of coating solids deposited on the panel as shown in Equation A-3.

$$P_{m,i} = (W_{rem,i}) / (W_{sdep,i}) \quad (Eq. A-3)$$

Where:

$P_{m,i}$ = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested per mass of coating solids deposited on the panel, grams of VOC remaining per gram of coating solids deposited.

$W_{rem,i}$ = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, grams.

$W_{sdep,i}$ = Mass of coating solids (from coating, i, or from the coating representing coating, i, in the panel test) deposited on the panel, grams.

#### 4.0 Converting Panel Result to Percent Capture.

The instructions in this section pertain to panel testing of for coating, i, or of the coating representing the group of coatings that includes coating, i.

4.1 If you panel test representative coatings, then you may convert the panel test result for each representative coating from section 3.3 of this appendix A either to a unique percent capture efficiency value for each coating grouped with that representative coating by using coating specific values for the mass fraction coating solids and mass fraction VOC in section 4.2 of this appendix A, or to a composite percent capture efficiency value for the group of coatings by using the average values for the group of coatings for mass fraction coating solids and mass fraction VOC in section 4.2 of this appendix A. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency value by using coating specific values for the mass fraction coating solids and mass fraction VOC in section 4.2 of this appendix A. The mass fraction of VOC in the coating and the mass fraction of solids in the coating must be determined by Method 24 (appendix A to 40 CFR part 60) or by following the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).

4.2 The percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the coating solids deposited on the panel that remains on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested is calculated using Equation A-4.

$$P_{voc_{pan,i}} = \left( \frac{P_{m,i}}{W_{s,i}} \right) (W_{s,i}) (100) / (W_{voc_{c,i}}) \quad (Eq. A-4)$$

Where:

$P_{voc_{pan,i}}$ = Percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the coating solids deposited on the panel that remains on the wet panel when the wet panel leaves the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested, percent.

$P_{m,i}$ = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested per mass of coating solids deposited on the panel, grams of VOC remaining per gram of coating solids deposited.

$W_{s,i}$ = Mass fraction of coating solids for coating, i, or average mass fraction of coating solids for the group of coatings including coating, i, grams coating solids per gram coating, determined by Method 24 (appendix A to 40 CFR part 60) or by following the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).

$W_{voc_{c,i}}$ = Mass fraction of VOC in coating, i, or average mass fraction of VOC for the group of coatings including coating, i, grams VOC per grams coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty

Truck Topcoat Operations,” EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).

4.3 The percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the coating sprayed in the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested that is captured in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested,  $CE_{zone,i}$  (percent), is calculated using Equation A-5.

$$CE_{zone,i} = 100 - P_{VOC_{zone,i}} \quad (Eq. A-5)$$

Where:

$CE_{zone,i}$  = Capture efficiency for coating, i, or for the group of coatings including coating, i, in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested as a percentage of the VOC in the coating, i, or of the group of coatings including coating, i, sprayed in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, percent.

4.4 Calculate the percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the entire volume of coating, i, or with the total volume of all of the coatings grouped with coating, i, sprayed in the entire spray booth that is captured in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, using Equation A-6. The volume of coating, i, or of the group of coatings including coating, i, sprayed in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, and the volume of coating, i, or of the group of coatings including coating, i, sprayed in the entire spray booth may be determined from gun on times and fluid flow rates or from direct measurements of coating usage.

$$CE_i = (CE_{zone,i}) (V_{zone,i}) / (V_{booth,i}) \quad S(Eq. A-6)$$

Where:

$CE_i$  = Capture efficiency for coating, i, or for the group of coatings including coating, i, in the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested as a percentage of the VOC in the coating, i, or of the group of coatings including coating, i, sprayed in the entire spray booth in which the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested, percent.

$V_{zone,i}$  = Volume of coating, i, or of the group of coatings including coating, i, sprayed in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, liters.

$V_{booth,i}$  = Volume of coating, i, or of the group of coatings including coating, i, sprayed in the entire spray booth containing the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested, liters.

4.5 If you conduct multiple panel tests for the same coating or same group of coatings in the same spray booth (either because the coating or group of coatings is controlled in non-contiguous zones of the spray booth, or because you choose to conduct separate panel tests for contiguous controlled spray booth zones), then you may add the result from section 4.4 for each such panel test to get the total capture efficiency for the coating or group of coatings over all of the controlled zones in the spray booth for the coating or group of coatings.

# Indiana Department of Environmental Management Office of Air Quality

## Addendum to the Technical Support Document for a Part 70 Operating Permit Renewal

### Source Background and Description

Source Name:	AM General LLC
Source Location:	13200 McKinley Highway, Mishawaka, Indiana 46545
County:	St. Joseph
SIC Code:	3711
Permit Renewal No.:	T141-17644-00031
Permit Reviewer:	ERG/BL

On April 10, 2008, the Office of Air Quality (OAQ) had a notice published in The South Bend Tribune, in South Bend, Indiana in St. Joseph County, stating that AM General LLC, had applied for a Part 70 Operating Permit Renewal. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On May 8, 2008, comments on the draft permit were submitted by Christopher E. Heaton on behalf of AM General LLC. The summary of the comments is as follows. New language is shown in **bold** and deleted language is shown in ~~strikeout~~. When conditions are added or deleted, remaining conditions and the Table of Contents are renumbered as necessary.

### AM General LLC Comments

#### Comment 1, H1 plant surface coating monitoring and limits:

Painting activities are intermittent and a short term VOC and PM/PM10 limit for paint booth 009 and 008 will restrict operations. Therefore, Conditions D.1.3 and D.1.4 should be revised to an annual limit.

Condition D.1.15(a) requires daily monitoring of VOC and HAP content spray coatings for Service Parts Booth, Spray Coating Booths 001 through 009, and 001b. This requirement is tremendously burdensome for a facility of this size. It is requested that the monitoring continue, but the recordkeeping be reduced to a monthly report to match the requirements of the dip tanks.

#### Response to Comment 1:

The limits have been revised to allow the source additional flexibility. To achieve this flexibility, equations have been provided for AM General LLC to determine compliance with the PM/PM10 limits (see Condition D.1.11 below). At this time testing is not necessary to determine PM/PM10 control or transfer efficiencies.

However, the source must maintain daily averaging records of VOC to demonstrate compliance with 326 IAC 8-2-9. Condition D.1.10 has been added to the permit to clarify the requirements for determining compliance with 326 IAC 8-2-9. The source shall maintain VOC, and weight percent solids of each coating material used and amount of each coating material used monthly. To clarify the recordkeeping requirements for the paint booths, Condition D.1.17 (formerly listed as D.1.15) has been revised as shown below. For clarification, Condition D.1.1 has been revised to include dip coating operations in reference to booth 001 and 002.

The following changes have been made to the permit as a result of this comment. Condition numbers have been adjusted where appropriate:

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

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicators of the Zinc Rich Primer Dip Booth, the Service Parts Booth, Spray **and Dip** Coating Booths 001 **and 002, Spray Coating Booths 003** through 009, and 001b shall be limited to the following:

- (a) The Permittee shall not allow the discharge into the atmosphere of VOC in excess of four and three-tenths (4.3) pounds of VOC per gallon of coating, excluding water, for clear coatings, as delivered to the applicator; **for dip coating compliance with 326 IAC 8-1-2(a)(9)(A), the equivalent emission limit is ten and two-tenths (10.2) pounds of VOC per gallon of coating solids.**
- (b) The Permittee shall not allow the discharge into the atmosphere of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, for forced warm air dried coatings, as delivered to the applicator; **for dip coating compliance with 326 IAC 8-1-2(a)(9)(A), the equivalent emission limit is six and seven-tenths (6.7) pounds of VOC per gallon of coating solids.**
- (c) Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of the coating operations during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

D.1.3 Minor Source Modification Limit [326 IAC 2-7-10.5(d)(5)]

Pursuant to CP141-3332-00031, issued January 10, 1994, the coatings applied by booth 009 shall be limited to the following:

- (a) The total VOC input to booth 009, including clean up solvents, shall ~~not exceed~~ **be less than 25 tons per year twelve (12) consecutive month period with compliance determined at the end of each month.**
- (b) The coatings applied by booth 009 shall be limited such that the total PM emissions shall ~~not exceed~~ **be less than 5.71 pounds per hour 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month.**
- (c) The coatings applied by booth 009 shall be limited such that the total PM10 emissions shall ~~not exceed~~ **be less than 3.42 pounds per hour 15 tons per twelve (12) consecutive month period with compliance determined at the end of each month.**
- (d) **The transfer efficiency of paint booth 009 shall not be less than 75%.**
- (e) **The control efficiency of the dry filter shall not be less than 80%.**

Compliance with these limits ~~above~~ limit VOC, PM, and PM10 to less than 25, 25, and 15 tons per year, respectively, and ~~will~~ renders 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to Registration CP141-3332-00031, issued January 10, 1994.

D.1.4 Minor Source Modification Limit [326 IAC 2-7-10.5(d)(5)]

Pursuant to CP141-5270-00031, issued May 1, 1996 and T141-6023-00031, issued on February 25, 1999 the coatings applied by booth 008 shall be limited to the following:

- (a) The total VOC input to booth 008, including clean up solvents, shall ~~not exceed~~ **be less than 9.13 pounds per hour 40 tons per twelve (12) consecutive month period with compliance determined at the end of each month.**
- (b) The coatings applied by booth 008 shall be limited such that the total PM emissions shall ~~not exceed~~ **be less than 5.71 pounds per hour 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month.**
- (c) The coatings applied by booth 008 shall be limited such that the total PM10 emissions shall ~~not exceed~~ **be less than 3.42 pounds per hour 15 tons per twelve (12) consecutive month period with compliance determined at the end of each month.**
- (d) **The transfer efficiency of paint booth 008 shall not be less than 75%.**
- (e) **The control efficiency of the dry filter shall not be less than 80%.**

Compliance with these limits ~~above~~ limit VOC, PM, and PM10 to less than 40, 25, and 15 tons per year, respectively, and ~~will~~ renders 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to CP141-5270-00031, issued May 1, 1996 and T141-6023-00031, issued on February 25, 1999.

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

- (a) Pursuant to 326 IAC 8-1-2(a)(9), compliance with the VOC content limit in Condition D.1.1 for the Dip Coating Booths shall be determined using the following equation:

$$VOC_A = \frac{\sum_i (W_{oi} D_{ci} Q_i) + \sum_j (W_{oj} D_{dj} Q_j)}{\sum_i (V_{ni} Q_i)}$$

Where

**VOC<sub>A</sub>** = The as-applied, VOC content in pound VOC per gallon (lb VOC/gal) of coating solids for a dip coating or flow coating, calculated on a thirty (30) day rolling average basis.

**W<sub>oi</sub>** = Percent VOC by weight of each as supplied coating (i) added to the dip coating or flow coating process, expressed as a decimal fraction (that is 55% = 0.55).

**D<sub>ci</sub>** = Density of each as supplied coating (i) added to the dip coating or flow coating process, in pounds per gallon.

**Q<sub>i</sub>** = Quantity of each as supplied coating (i) added to the dip coating or flow coating process, in gallons.

**V<sub>ni</sub>** = Percent solids by volume of each as supplied coating (i) added to the dip coating or flow coating process, expressed as a decimal fraction.

**W<sub>oj</sub>** = Percent VOC by weight of each thinner (j) added to the dip coating or flow coating process, expressed as a decimal fraction.

**D<sub>dj</sub>** = Density of each thinner (j) added to the dip coating or flow coating process, in pounds per gallon.

**Q<sub>j</sub>** = Quantity of each thinner (j) added to the dip coating or flow coating process, in gallons.

- (b) Compliance with the VOC content and usage limitations contained in Conditions D.1.1, for the Spray Coating Booths 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 "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.

**D.1.11 Particulate Matter (PM/PM10) Emissions Determination [326 IAC 2-7-10.5(d)(5)]**

Compliance with Conditions D.1.3(b), D.1.3(c), D.1.4(b), and D.1.4(c) shall be determined by calculating the PM/PM10 emissions associated with each coating applied by paint booths 008 and 009 using the following equation:

$$PM / PM10 = CU \times D \times W\% S \times \left(1 - \frac{TE}{100}\right) \times \left(1 - \frac{CE}{100}\right) \times \frac{1}{2000}$$

Where:

- PM/PM10 =** The total PM/PM10 emissions (ton/month) for a given coating.
- CU =** The total coating use (gal coating/month) of a given coating.
- D =** The density (lb coating/gal coating) of a given coating.
- W%S =** The weight percent solids (lb solids/lb coating) of a given coating.
- TE =** The transfer efficiency (%) of the spray applicators. This value shall equal 75% or a value determined from the most recent valid compliance demonstration.
- CE =** The control efficiency (%) of the dry filters. This value shall equal 90% or a value determined from the most recent valid compliance demonstration.

The total PM/PM10 emissions (ton/month) from paint booths 008 and 009 is equal to the sum of the PM/PM10 emissions associated with each coating applied by those booths.

**D.1.14D.1.13 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants [326 IAC 8-1-4] [326 IAC 8-1-2(a)]**

- (a) Compliance with the VOC and HAP content and usage limitations contained in Conditions D.1.1, D.1.2, D.1.3(a), D.1.4(a), and D.1.5 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 "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) Pursuant to 326 IAC 8-1-2(7), compliance with the VOC content limit in Condition D.1.1 for Spray Coating Booths 001 through 009, 001b, and the Service Parts Booth when using spray applicator shall be determined using a daily volume weighted average of the coatings applied.
- (c) Pursuant to 326 IAC 8-1-2(10), compliance with the VOC content limit in Condition D.1.1 for the Service Parts Booth and the Zinc Rich Primer Dip Booth when using the dip tank may be determined using a monthly volume weighted average of the coatings applied.

...

**D.1.15D.1.17 Record Keeping Requirements**

- (a) To document compliance with Conditions D.1.1, D.1.2, D.1.3(a), D.1.4(a), and D.1.5 the Permittee shall maintain daily records in accordance with (1) through (10) below. Records maintained for (1) through (10) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC and HAP limits in Conditions D.1.1, D.1.2, D.1.3(a), D.1.4(a), and D.1.5.
- (1) The amount and VOC and HAP content of each coating material and solvent used daily for coatings sprayed and monthly for coatings applied by the dip tank, purchase orders, invoices, and material safety data sheets (MSDS) necessary to

~~verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;~~

- ~~(2) — A log of the dates of use;~~
- ~~(3) — The volume weighted VOC and HAP content of the coatings applied through spray application for each day;~~
- ~~(4) — The volume weighted VOC and HAP content of the coatings applied from the dip tank for each month;~~
- ~~(5) — The cleanup solvent/thinners usage for each day from spray application;~~
- ~~(6) — The cleanup solvent/thinners usage for each month from the dip tank;~~
- ~~(7) — The total VOC and HAP usage for each day from spray application;~~
- ~~(8) — The total VOC and HAP usage for each month from the dip tank;~~
- ~~(9) — The calculated daily volume weighted average VOC and HAP content per gallon of the coatings less water as applied from spray application.~~
- ~~(10) — The calculated monthly volume weighted average VOC and HAP content per gallon of the coatings less water as applied from the dip tank.~~

**(a) Pursuant to 326 IAC 8-1-2(a)(9)(B)(ii) and to document compliance with Condition D.1.1 for the Dip Coating Booths, the Permittee shall maintain daily records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC limit in Condition D.1.1.**

- (1) The following parameters for each coating, thinner, or other material as supplied:**
  - (i) The coating, thinner, or other material identification number.**
  - (ii) The volume used.**
  - (iii) The mix ratio.**
  - (iv) The density or specific gravity.**
  - (v) The weight percent of total volatiles, water, solids, and exempt solvents.**
  - (vi) The volume percent of solids.**
- (2) The VOC content of each coating and thinner as supplied.**
- (3) The VOC content of each coating as applied.**

**(b) To document compliance with Conditions D.1.1 for the Spray Coating Booths, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits established in Conditions D.1.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.**

- (1) The VOC content of each coating material and solvent used.**

- (2) The amount of coating material and solvent less water used on monthly basis.**

  - (A) Records shall include purchase orders, invoices, 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 compliance with Conditions D.1.2(a), D.1.2(b), D.1.3(a), D.1.4(a), and D.1.5, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits established in Conditions D.1.2, D.1.3, D.1.4, and D.1.5. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.**

  - (1) The VOC content of each coating material and solvent used.**
  - (2) The amount of coating material and solvent less water used on monthly basis.**

    - (A) Records shall include purchase orders, invoices, 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.**
  - (3) The cleanup solvent usage for each month;**
  - (4) The total VOC usage for each month; and**
  - (5) The weight of VOCs emitted for each compliance period.**
  
- (d) To document compliance with Conditions D.1.2(c), D.1.2(d), and D.1.2(e), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.1.2.**

  - (1) The HAP content of each coating material and solvent used.**
  - (2) The amount of coating material and solvent less water used on monthly basis.**

    - (A) Records shall include purchase orders, invoices, 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.**
  - (3) The cleanup solvent usage for each month;**
  - (4) The total HAP usage for each month; and**
  - (5) The weight of HAP emitted for each compliance period.**

- (e) To document compliance with Conditions D.1.3(b), D.1.3(c), D.1.4(b), and D.1.4(c), the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to demonstrate compliance with the PM/PM10 emission limits established in Condition D.1.3 and D.1.4.
- (1) The amount of each coating material used (as applied). Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
- (2) The density and weight percent solids of each coating material used (as applied).
- ~~(e)~~(f) To document compliance with Condition ~~D.1.13~~D.1.15, the Permittee shall maintain records of daily visible emission notations of the Metal Parts Blasting Room stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- ~~(d)~~(g) To document compliance with Condition ~~D.1.14~~D.1.16, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections.
- ~~(e)~~(h) To document compliance with Condition ~~D.1.14~~D.1.16, the Permittee shall maintain a log of weekly overspray observations, weekly observations of the water level in the pans, daily and monthly inspections.
- ~~(f)~~(i) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**Comment 2, Revise PM/PM10 limits and testing for H1 plant blasting operations:**

Exhaust from blasting operations are routed to two (2) separate cartridge type dust collectors and vent through two (2) separate stacks. The stacks vent back into the building during the cooler months of the year and to the atmosphere during the warmer months. The blast media is steel shot and the substrate is solid steel parts. Blasting is done to remove oxidation and rust from the metal parts to prepare them for finishing. The steel shot blasting media is significantly larger than PM100 and should not contribute to PM emissions.

The blasting operations are controlled with a high efficiency dust collector, they only occasionally exhaust to the atmosphere, and blast media is too large to be airborne particulate matter. The stack testing required under Condition D.1.12 is not justified. If stack testing is not removed IDEM should clarify that only one exhaust stack will be tested.

AM General LLC requests the hourly PM/PM10 limits in Condition D.1.7 for metal parts blasting operations be revised to annual limits.

Condition D.1.13 requires visible emission notations be performed once per day during normal daylight operations when exhausting to the atmosphere. AM General LLC requests the visible emissions notations be reduced to weekly monitoring.

**Response to Comment 2:**

Although the blast media is large the particles of oxidation and rust removed will be smaller and likely become airborne. The evidence provided by AM General LLC is insufficient to remove testing or reduce visible emission monitoring for the blasting operation. IDEM, OAQ has determined that testing and visible emission notations are necessary to demonstrate compliance with 326 IAC 2-2 (PSD). Performance testing details, such as sampling locations, will not be specified in the permit. Testing protocol shall be submitted to and approved by IDEM Compliance

Data Section. For additional details see Condition C.7. No change to the permit was made based on this comment:

**Comment 3, Relax H2 Plant surface coating testing:**

Condition D.5.9(b) requires AM General to conduct stack tests to demonstrate destruction and capture efficiency of the Regenerative Thermal Oxidizer (RTO) at least once every two and a half (2.5) years to ensure compliance with 326 IAC 2-2 (PSD) BACT, 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), and 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations).

Testing performed in 2005 and 2007 demonstrated consistent compliance with VOC limits and system capture and destruction efficiencies.

**Response to Comment 3:**

The evidence provided by AM General LLC is insufficient to relax testing to once every five (5) years. No change to the permit was made based on this comment. However, AM General LLC may request that the OAQ Compliance Data Section allow them to skip the next testing cycle.

**Comment 4, Relax record keeping for H2 plant surface coating:**

Conditions D.5.15(a) and D.5.15(b) require daily monitoring of VOC content for the H2 plant surface coating (Category #3 through #5, and #7 through #11). This requirement is tremendously burdensome for a facility of this size. It is requested that the monitoring continue, but the recordkeeping be reduced to a monthly report to match the requirements of the H1 Plant dip tank (Zinc Rich Primer Dip Booth).

**Response to Comment 4:**

The most straight forward way to comply with a VOC emission limit in 326 IAC 8-2 is to use only compliant coatings. AM General LLC uses a variety of different coatings, not all of which are compliant with 326 IAC 8-2. Because the source uses an add-on control to reduce VOC emissions, monthly record keeping is sufficient to demonstrate compliance. The following changes have been made to the permit as a result of this comment:

D.5.15 Record Keeping Requirements

- 
- (a) To document compliance with Conditions D.5.1(c), D.5.2, and D.5.3, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be sufficient to establish compliance with the VOC usage, vehicle production limits, and the VOC emission limits established in Conditions D.5.1(c), D.5.2, and D.5.3.
- (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (2) A log of the dates of use.
  - (3) The VOC usage each ~~day~~ **month** from the Final and Spot Repair.
  - (4) The cleanup solvent usage for each month.
  - (5) The total VOC usage for each month.
  - (6) The weight of VOCs emitted for each compliance period.

- (7) Vehicle production for each day and month.
- (b) To document compliance with Conditions D.5.1(c) and D.5.2(b), the Permittee shall maintain records in accordance with (1) through (11) below. Records maintained for (1) through (11) shall be sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.5.1(c) and D.5.2(b).
- (1) The amount and VOC content of each coating material and solvent used ~~daily~~ **monthly** for coatings sprayed and monthly for coatings applied by the dip tank, purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (2) A log of the dates of use.
  - (3) The volume weighted VOC content of the coatings applied through spray application for each ~~day~~ **month**.
  - (4) The volume weighted VOC content of the coatings applied from the dip tank for each month.
  - (5) The cleanup solvent/thinners usage for each ~~day~~ **month** from spray application.
  - (6) The cleanup solvent/thinners usage for each month from the dip tank.
  - (7) The total VOC usage for each ~~day~~ **month** from spray application.
  - (8) The total VOC usage for each month from the dip tank.
  - (9) The calculated daily volume weighted average VOC content per gallon of the coatings less water as applied from spray application.
  - (10) The calculated **VOC content, as applied in pounds VOC per gallon of coating solids on a 30-day rolling average** ~~monthly volume weighted average VOC content per gallon of the coatings less water as applied~~ from the dip tank.
  - (11) The calculated ~~daily~~ **monthly** volume weighted average emissions in pounds per gallon coating solids for coatings applied through spray application systems.

**Comment 5, Relax recordkeeping for H2 plant surface coating:**

Conditions D.5.15(a) and D.5.15(b) require daily monitoring of VOC content for the H2 plant surface coating (Category #3 through #5, and #7 through #11). This requirement is tremendously burdensome for a facility of this size. It is requested that the monitoring continue, but the recordkeeping be reduced to a monthly report to match the requirements of the H1 Plant dip tank (Zinc Rich Primer Dip Booth).

**Response to Comment 5:**

IDEM believes it is necessary to monitor pressure or fan amperage because the RTO must operate correctly to comply with the limits in Conditions D.5.1, D.5.2, and D.5.3. No change to the permit was made based on this comment.

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

### Source Background and Description

Source Name:	AM General LLC
Source Location:	13200 McKinley Highway, Mishawaka, Indiana 46545
County:	St. Joseph
SIC Code:	3711
Operation Permit No.:	T141-6023-00031
Operation Permit Issuance Date:	February 25, 1999
Permit Renewal No.:	T141-17644-00031
Permit Reviewer:	ERG/BL

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit Renewal application from AM General LLC relating to the operation of a vehicle production plant used to manufacture vehicles for military and commercial use.

### Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) Surface coating facilities in the H1 Plant. Under 40 CFR 63, Subpart M, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M]:
  - (1) One (1) spraying and dipping operation, constructed in 1983, identified as 001, for the prime coating of small metal parts, with PM overspray from the spraying controlled by water wash, and exhausting at stacks S1 and S2.
  - (2) One (1) spraying and dipping operation, constructed in 1983, identified as 002, for the topcoating of small metal parts, with PM overspray from the spraying controlled by water wash, and exhausting at stacks S3 and S4.
  - (3) One (1) spray coating operation, constructed in 1983, identified as 003, for the prime coating of metal vehicle bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S5, S6, S7 and S8.
  - (4) One (1) spray coating operation, constructed in 1983, identified as 004, for the topcoating of metal vehicle bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S9, S10, S11 and S12.
  - (5) One (1) spray coating operation, constructed in 1983, identified as 005, for the topcoating of metal vehicle chassis, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S13, and S14.
  - (6) One (1) spray coating operation, constructed in 1983, identified as 006, for the camouflage painting of metal vehicle bodies, with a maximum capacity of 12.5 units per hour, with PM overspray controlled by water wash, and exhausting to stacks S15, S16, S17 and S18.

- (7) One (1) touch-up/repair spray coating operation, constructed in 1983, identified as 007, for the repair of metal vehicle body surfaces which may have been damaged in assembly or which may have defects in the quality of surface coating, or surface coating of parts for distribution as service (replacement) parts to be assembled in the field, with PM overspray controlled by dry filters, and exhausting to stack S19.
  - (8) One (1) Zinc Rich Primer Dip Booth, located adjacent to Small Parts Prime Booth 001 of the main H1 plant. This booth was permitted to construct in 2003.
  - (9) One (1) surface coating spray booth, identified as Booth 001b equipped with spray cup guns with compressed air, with PM overspray controlled by dry filters. This operation is used for repair painting metal parts.
  - (10) One (1) service parts booth, permitted to construct in 2007, with a spray system and a dip tank, using dry filters to control the PM overspray emissions from the spray system.
  - (11) Metal parts blasting room, constructed in 2007, capable of blasting, using 176,250 pounds of steel and plastic abrasives per hour, with two (2) cartridge filters used to control the PM and PM10 emissions.
- (b) Surface coating facilities in the Armour Building. Under 40 CFR 63, Subpart M, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M]:
- (1) One (1) spray coating operation, constructed in 1991, identified as 008, for the prime coating and topcoating of metal vehicle bodies, with PM overspray controlled by dry filters, and exhausting to stacks S21, S22, S23, S24, S25, S26 and S27.
  - (2) One (1) spray coating operation, constructed in 1993, identified as 009, for accent and trim painting of metal vehicle bodies, with PM overspray controlled by dry filters, and exhausting to stacks S28 and S29.
- (c) Two (2) natural gas-fired boilers, identified as 010 and 011, constructed in 1983, each has a heat input capacity of 25.2 MMBtu per hour, exhausting to stacks S30 and S31, respectively, located at the H1 Plant.
- (d) H2 Plant Vehicle Production (Automobiles, Light Duty Trucks, and Heavier Vehicles):
- (1) Two (2) natural-gas-fired low NOx boilers, identified as boiler #1 and boiler #2, constructed in 2000-2001, each has a heat input capacity of 25 MMBtu/hr (Category #2). Under 40 CFR 60.40c, Subpart Dc, this is a small industrial-commercial-institutional steam generating unit [40 CFR 60, Subpart Dc].
  - (2) Miscellaneous natural gas-fired various heaters and low NOx process ovens, each constructed in 2000-2001, with a total heat input of 109 MMBtu/hr. The ovens use a Thermal Oxidizer to control VOC. The total heat input of the Thermal Oxidizer is 9.70 MMBtu/hr (Category #1).
  - (3) Body Shop in which metal body components of the automobiles, light duty trucks, and H2 vehicles are assembled. The assembly consists of the following process units: right-hand and left-hand side body, underbody, rear opening, main body, roof, door, hood and lift-gate. Various types of welding, resistance spot welding, and metal grinding/brazing are performed. The body shop process was constructed in 2000-2001.
  - (4) Painting Operations:

- (A) Electrodeposition dip prime process (E-Coat/ELPO) (Category #3) – Phosphate cleaning consists of the following process units: spray cleaner, immersion cleaner, spray rinse, immersion conditioner, zinc phosphate immersion cleaner, spray rinse, immersion R.O. rinse, passivation, and R.O. spray rinse.

The electrodeposition dip prime coating system (E-Coat/ELPO), which follows the phosphate cleaning, consists of the following process units: e-coat dip, ultrafilter recirculated rinse, ultrafilter dip rinse, recirculated ultrafilter spray, R.O. recirculated spray, e-coat oven (zones 1 to 5) and e-coat cooler (oven exit).

The VOC and HAPs emissions from the Electrodeposition dip prime process (E-Coat/ELPO), and the E-Coat/ELPO drying oven are controlled by a Regenerative Thermal Oxidizer. The electrodeposition dip prime process was constructed in 2000-2001. Under 40 CFR 63, Subpart M and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M][40 CFR 63, Subpart IIII].

- (B) Primer System (Category #4) – Consists of the following process units: e-coat scuff, interior sealing, exterior sealing, sealer inspection, tack-off booth, manual spray booth, robot spray booth, observation booth, common flash off enclosure, prime oven (zones 1 to 3) and prime cooler (oven exit). The primer system was constructed in 2000-2001. Under 40 CFR 63, Subpart M and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M][40 CFR 63, Subpart IIII].

The VOC and HAPs emissions from the Primer robot spray booth, observation booth, common flash off enclosure, prime oven and prime cooler (oven exit) are controlled by a Regenerative Thermal Oxidizer. The PM overspray is controlled by a water wash.

- (C) Topcoat System (Category #5) - Consists of the following process units: prime scuff and prep booth, topcoat blow off booth, basecoat manual spray booth, basecoat robot spray booth, basecoat observation booth, flash off zone, clearcoat manual spray booth, clearcoat robot spray booth, clearcoat observation booth, common flash off enclosure, topcoat oven (zones 1 to 3) and topcoat cooler (oven exit). The topcoat system was constructed in 2000-2001. Under 40 CFR 63, Subpart M and Subpart IIII, this is an existing metal parts and products surface coating facility [40 CFR 63, Subpart M][40 CFR 63, Subpart IIII].

The VOC and HAPs emissions from the basecoat robot spray booth, basecoat observation booth, flash off zone, clearcoat robot spray booth, clearcoat observation booth, common flash off enclosure, topcoat oven and topcoat cooler (oven exit) are controlled by a Regenerative Thermal Oxidizer. The PM overspray is controlled by a water wash.

- (D) Vehicle Fluid Filling (Category #7) used to fill vehicles with gasoline, antifreeze, windshield washer fluid, power steering fluid, and air conditioner refrigerant. The vehicle fluid filling process was constructed in 2000-2001.
- (E) Final and Spot Repair (Category #8) including off-line spot and three (3) final repair stations, identified as No.1, No.2, and No.3. The PM overspray from this system is controlled by dry filters. The final and spot repair process was constructed in 2000-2001. Under 40 CFR 63, Subpart M and Subpart IIII, this is an existing metal parts and

products surface coating facility [40 CFR 63, Subpart M][40 CFR 63, Subpart IIII].

- (F) Assembly Final Line (Category #9) consisting of interior and exterior trim components and glass installation, chassis, brake fluid, transmission fluid and engine oil fill, wheel/tires, powertrain, and final line assembly operations including a vehicle start-up and roll test used to verify if the powertrain is installed correctly. The assembly final line process was constructed in 2000-2001.
- (G) Miscellaneous Solvent Purge Usage and Cleanup (Category #10) - Solvents used in the body shop, paint shop, oven cleaning, general assembly areas, and routine housekeeping areas. In the paint shop the purge material is reclaimed internally or externally to the spray application equipment.
- (H) Miscellaneous Sealers and Adhesives (Category #11) - Various sealers and adhesives are used throughout the assembly process. Structural sealers and adhesives are used in the Body Shop. The majority of these sealers and adhesives are used in the paint shop. In General Assembly, a combination glass primer and sealer system is used in the vehicle glass installation. These sealers and adhesives are either air dried or oven cured.

#### Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

#### Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Insignificant Activities in the Armour Building, consisting of one (1) bumper booth, with dry filters to control the PM overspray emissions [326 IAC 6-3-2].
- (b) Insignificant Activities in the Automobiles, light duty trucks, and H2 vehicles production plant:
  - (1) Bulk Storage Tanks (Category #12), constructed in 2000-2001, equipped with stage I vapor controls, submerged fill pipes, and conservation vents to minimize VOC and HAPs emissions [326 IAC 2-2][326 IAC 8-4-6].
    - (A) One (1) purge solvent vertical fixed roof above ground storage tank, ID 101, with a capacity of 10,000 gallons.
    - (B) One (1) unleaded gasoline vertical fixed roof above ground storage tank, ID 102, with a capacity of 10,000 gallons.
    - (C) One (1) antifreeze (ethylene glycol) vertical fixed roof above ground storage tank, ID 103, with a capacity of 8,000 gallons.
    - (D) One (1) window washer vertical fixed roof above ground storage tank, ID 104, with a capacity of 3,000 gallons.
    - (E) One (1) transmission fluid vertical fixed roof above ground storage tank, ID 105, with a capacity of 3,000 gallons.
    - (F) One (1) power steering fluid vertical fixed roof above ground storage tank, ID 106, with a capacity of 3,000 gallons.

(G) One (1) waste solvent vertical fixed roof above ground storage tank, ID 107, with a capacity of 10,000 gallons.

(c) Insignificant Activities in the H1 Plant [326 IAC 2-2]:

- (1) One (1) diesel horizontal underground storage tank, with a capacity of 12,000 gallons.
- (2) One (1) automatic transmission fluid horizontal underground storage tank, with a capacity of 10,000 gallons.
- (3) One (1) antifreeze horizontal underground storage tank, with a capacity of 10,000 gallons.
- (4) One (1) gasoline rectangular above ground storage tank, with a capacity of 1,500 gallons.
- (5) One (1) diesel fuel rectangular above ground storage tank, with a capacity of 1,500 gallons.

(d) General List of Insignificant Activities

- (1) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons [326 IAC 2-2].
- (2) A petroleum fuel, other than gasoline dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month [326 IAC 2-2].
- (3) The following VOC and HAP storage containers [326 IAC 2-2]:
  - Storage tanks with capacity less than 1,000 gallons and annual throughput less than 12,000 gallons.
  - Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids.
- (4) Degreasing operations that do not exceed 145 gallons per 12 months, and not subject to 326 IAC 20-6 [326 IAC 8-3-2] [326 IAC 8-3-5].
- (5) Cleaners and solvents characterized as follows [326 IAC 2-2]:
  - Having a vapor pressure equal to or less than 2 kPa; 15 mmHg, or 0.3 psi measured at 38 degrees C (100 °F) or
  - Having a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20 °C (68 °F).
  - The use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (6) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].
- (7) The following equipment related to manufacturing activities not resulting in the emissions of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3].
- (8) Emergency generators as follows: Gasoline generators not exceeding 110 horsepower, diesel generators not exceeding 1,600 horsepower, natural gas turbines or reciprocating engines not exceeding 16,000 horsepower.
- (9) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.

- (10) Machining where an aqueous cutting coolant continuously floods the machining interface.
  - (11) Closed loop heating and cooling systems.
  - (12) Infrared cure equipment.
  - (13) Exposure chambers for curing of ultraviolet inks and ultra-violet coatings where heat is the intended discharge.
  - (14) Solvent recycling systems with bath capacity less than or equal to 100 gallons.
  - (15) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
  - (16) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.
  - (17) Non-contact cooling tower systems with either of the following:
    - Natural draft cooling towers not regulated under a NESHAP
    - Forced and induced draft cooling tower system not regulated under a NESHAP.
  - (18) Heat exchanger cleaning and repair.
  - (19) Process vessel degassing and cleaning to prepare for internal repairs.
  - (20) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
  - (21) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators tank and fluid handling equipment.
  - (22) Space heaters, process heaters, or boilers using the following fuels:
    - Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
    - Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.
    - Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.
- (e) Plant Specific Insignificant Activities:
- (1) Sludge room water treatment (Emissions accounted for in the emission determinations at each respective source).
  - (2) Sludge room (Emissions accounted for in the emission determinations at each respective source).
  - (3) Laboratories.
  - (4) Print/Copy shops.
  - (5) Wet/dry sanding booths.
  - (6) Open metal grinding - Performed in the body shop.

- (7) Resistance Welding - Majority of welding operations performed in the body shop.
- (8) Property Maintenance - Landscaping, paving, roofing, and painting.
- (9) Material Storage.
- (10) Paint Mix Rooms (Emissions accounted for in the emission determinations at each respective facility).
- (11) Non-VOC parts washing.
- (12) Equipment maintenance lube/degreaser.
- (13) Vehicle washers prior to shipping.
- (14) Vehicle fluid fill operations:
  - Engine oil
  - Windshield fluid
  - Engine coolant
  - Brake fluid
  - Air conditioning refrigerant
  - Power steering fluid
- (15) Storage tanks for brake fluid, gear oil and engine oil.
- (16) Engine sub-assembly line - Assembly of engine components.
- (17) Radiator sub-assembly line - Assembly of radiator components.
- (18) Trim assembly line - Installation of various interior/exterior vehicle components.
- (19) Paint pump repair shop.
- (20) Leak test areas.
- (21) Pre-washers.
- (22) Spot sanding and painting.
- (23) Phosphate system.
- (24) Masking and polishing areas.
- (25) Turbo blower - Power blowing of vehicle.
- (26) Dolly touch-up.
- (27) Dolly cleaning (water blast) - Cleaning of vehicle carrier.
- (28) Inspection and audit areas.
- (29) Emergency generators less than 1600 hp and fire pumps.

### Existing Approvals

The source has been operating under a Title V permit No.: T141-6023-00031, issued February 25, 1999 and the following revisions and amendments:

- (a) Minor Source Modification (MSM) 141-10954-00031, issued August 16, 1999.
- (b) Administrative Amendment (AA) 141-12041-00031, issued on April 20, 2000.
- (c) PSD/Significant Source Modification (SSM) 141-11673-00031, issued on June 28, 2000.

- (d) AA141-12413-00031, issued on August 4, 2000.
- (e) AA141-12212-00031, issued on August 22, 2000.
- (f) AA141-14597-00031, issued on July 31, 2001.
- (g) Reopening 141-13466-00031, issued on November 1, 2001.
- (h) Significant Permit Modification (SPM) 141-15219-00031, issued on May 8, 2002.
- (i) Minor Permit Modification (MPM) 141-15726-00031, issued on July 31, 2002.
- (j) AA141-16221-00031, issued August 20, 2002.
- (k) Interim MSM 141-17101I, issued on January 28, 2003.
- (l) MSM141-17101-00031, issued on March 12, 2003.
- (m) Interim MSM141-16912I, issued on March 31, 2003.
- (n) MPM141-17181-00031, issued on April 3, 2003.
- (o) MSM141-16912-00031, issued on June 10, 2003.
- (p) AA141-17324-00031, issued on June 24, 2003.
- (q) MPM141-17407-00031, issued on July 9, 2003.
- (r) SPM141-16052-00031, issued on August 25, 2003.
- (s) SSM141-23096-00031, issued on March 14, 2007.
- (t) SSM141-22343-00031, issued on March 14, 2007.
- (u) SPM141-22830-00031, issued on March 28, 2007.
- (v) SPM141-24696-00031, issued September 28, 2007.

The following conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this Part 70 permit renewal:

- (a) Title V Permit No.: 089-6023-00031, issued on February 25, 1999.
  - (1) Condition D.1.6, Condition D.2.3, Condition D.3.3 and Condition 4.2: The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with VOC and particulate limits shall be determined by a performance test conducted in accordance with Section C - Performance Testing.  
  
Reason not incorporated: Testing is not required for any of the PM emitting facilities under the H1 Plant or Armour Building because no single facility or control device accounts for a significant percentage of the potential emissions from the entire source before control. No Testing is required for VOC/HAP because the Permittee can demonstrate compliance by keeping MSDS for the material being used.
  - (2) Condition D.2.2: Boilers 010 and 011 shall only use natural gas as fuel.

Reason not incorporated: The Permittee only utilizes natural gas in the two (2) boilers. Therefore, the condition for the fuel usage is redundant.

- (3) Condition D.2.4: To show compliance with Condition D.2.2, the Permittee shall certify that boilers 010 and 011 have burned only natural gas for fuel; and Condition D.2.5: The natural gas-fired certification located at the end of this permit shall be submitted to the address listed in Section C.

Reason not incorporated: An annual certification is not required for steam generating units combusting only natural gas.

- (4) Condition D.3.4: Monitoring of this facility is not specifically required by this permit. However, any change or modification to these facilities as specified in 326 IAC 2-1 may require this facility to have monitoring requirements.

Reason not incorporated: There are no compliance monitoring requirements applicable to the insignificant degreasing activities.

- (5) Condition D.4.3: There are no record keeping or requirements for this facility.

Reason not incorporated: This statement was not included in the renewal permit because it is unnecessary.

- (b) All construction conditions from all previously issued permits.

Reason not incorporated: All facilities previously permitted have already been constructed; therefore, the construction conditions are no longer necessary as part of the operating permit. Any facilities that were previously permitted but have not yet been constructed would need new pre-construction approval before beginning construction.

### **Enforcement Issue**

The source has the following Notice of Violation enforcement actions pending:

Case No. 2004-14146-A, a PSD BACT was determined for the painting system for the H2 vehicle production plant in SSM 141-11673-00031. The BACT resulted in separate VOC limits for each line in permit 141-15219-00031, issued May 8, 2002. However, the source constructed the painting system in a manner that combined the flash tunnels and made it impossible to demonstrate compliance with the individual VOC limits, in violation of IC 13-30-2-1(7) and 326 IAC 2-2-8.

### **Emission Calculations**

See Appendix A of this document for detailed emission calculations (Appendix A, pages 1 through 20).

## County Attainment Status

The source is located in St. Joseph County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Attainment effective July 19, 2007, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
PM <sub>2.5</sub>	Unclassifiable or attainment effective April 5, 2005
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.

<sup>1</sup>Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including St. Joseph County, and is a maintenance area for the 1-hour ozone National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X\*. The 1-hour standard was revoked effective June 15, 2005.

(a) Ozone Standards

- (1) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.
- (2) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) 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 NOx emissions are considered when evaluating the rule applicability relating to ozone. St. Joseph County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM2.5

St. Joseph County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.

(c) Other Criteria Pollutants

St. Joseph County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, fugitive emissions are not counted toward the determination of PSD applicability.

## Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	7
PM10	7
SO <sub>2</sub>	0
VOC	349
CO	0
NO <sub>x</sub>	1
HAP	Not Available

### Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet 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.

### Potential to Emit of the Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

The source was issued a Part 70 Operating Permit on February 25, 1999. 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 the original Part 70 operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Emission unit	Potential to Emit (tons/year)						
	PM	PM10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Spray Booth 001	(j)	(j)	-	377 <sup>a,e,n</sup>	-	-	> 25
Spray Booth 002			-		-		
Spray Booth 003			-		-		
Spray Booth 004			-		-		
Spray Booth 005			-		-		
Spray Booth 006			-		-		
Spray Booth 007			-		-		
Boilers 010 and 011	0.41 <sup>f</sup>	1.64	0.13		18.2	21.6	
Insignificant Boilers	0.02 <sup>i</sup>	0.10	0.01		1.08	1.29	
Spray Booth 008	less than 25 <sup>g,j</sup>	less than 15 <sup>g</sup>	-	less than 3.25 <sup>b,e,n</sup>	-	-	
Spray Booth 009	less than 25 <sup>g,j</sup>	less than 15 <sup>g</sup>	-	less than 24 <sup>c,e,n</sup>	-	-	
Spray Booth 001b	< 25 <sup>h</sup>	< 15 <sup>h</sup>	-	14 <sup>d,n</sup>	-	-	<25 <sup>h</sup>
Zinc Rich Dip Booth			-	25 <sup>e,n</sup>	-	-	<10 <sup>i</sup>
Category #1 (ovens, heaters, and oxidizer)	0.97 <sup>l</sup>	3.87	0.31	2.80	42.8	25.5	0.96
Category #2 (Boiler 1 and 2)	0.41 <sup>t</sup>	1.63	0.13	1.18	18.0	10.7	.41
Body Shop	(j)	(j)	-	-	-	-	-
Category #3	-	-	-	0.53 <sup>l,n,o</sup>	-	-	-
Category #4	1.98 <sup>j</sup>	1.98	-	62.0 <sup>l,n,o</sup>	-	-	41.8
Category #5	4.36 <sup>j</sup>	4.36	-	221 <sup>l,n,o</sup>	-	-	39.9
Category #7	-	-	-	5.74	-	-	-
Category #8	0.32 <sup>j</sup>	0.32	-	2.70 <sup>k</sup>	-	-	12.7
Category #9	0.46 <sup>j</sup>	0.46	-	0.32	2.33	0.79	-
Category #10	-	-	-	76.9	-	-	191
Category #11	-	-	-	45.0 <sup>n</sup>	-	-	198
Category #12	-	-	-	5.74	-	-	-
Service parts booth	0.20	0.20	-	25.7	-	-	17.3
Blast Surface Prep	1.86	0.04	-	-	-	-	-
Total PTE	Less than 250 <sup>m</sup>	Less than 250 <sup>m</sup>	0.57	Less than 866	82.4	59.9	Greater than 10 and 25 for a single and combination of HAPs, respectively.

- (a) The VOC emissions are limited pursuant to T141-6023-00031, issued on February 25, 1999. See State Rule Applicability Section under 326 IAC 2-2 (Prevention of Significant Deterioration) for more information.
- (b) Pursuant to MSM 141-16912-00031, issued on June 10, 2003 and CP 141-5270-00031, issued on May 1, 1996, the total amount of VOC delivered to the coating applicator of booth 008 including clean up solvents, shall be limited to 3.25 tons per twelve (12) consecutive month period. Compliance with this limit will render the requirements of 326 IAC 2-2 not applicable.
- (c) Pursuant to CP 141-5270-00031, issued May 1, 1996, Registration 141-3332-00031, issued January 10, 1994 and MSM 141-16912-00031, issued on June 10, 2003, the total amount of VOC delivered to the coating applicator of booth 009 including clean up solvents, shall be limited to 24 tons per twelve (12) consecutive month period. Compliance with this limit will render the requirements of 326 IAC 2-2 not applicable.
- (d) Pursuant to MSM 141-16912-00031 the total VOC input usage to Booth 001b shall be limited to 14 tons per twelve (12) consecutive month period. Compliance with this limit will render the requirements of 326 IAC 2-2 not applicable.

- (e) Pursuant to 326 IAC 8-2-9, the surface coating booths shall be limited to 3.5 pounds of VOC per gallon of coating less water, for forced warm air dried coatings and 4.3 pounds of VOC per gallon of coating less water, for clear coatings.
- (f) Pursuant to 326 IAC 6-2-4, the PM emissions from boilers 010 and 011 shall not exceed 0.39 pounds per MMBtu, boilers #1 and #2 shall not exceed 0.32 pound per MMBtu and the two insignificant 1.5 MMBtu/hr shall not exceed 0.38 pounds per MMBtu. Emission calculations based on AP-42 emission factors indicate that each boiler unit is able to comply with this limit without using a control device.
- (g) The PM/PM10 emissions are limited pursuant to T141-6023-00031, issued on February 25, 1999 in order to render the requirements of 326 IAC 2-2 not applicable. Note that the facilities are subject to the requirements of 326 IAC 6-3-2.
- (h) Pursuant to MSM 141-16912-00031, issued on June 10, 2003, the total combined HAPs input usage shall be limited to less than 25 tons per twelve consecutive month period; and the potential to emit PM and PM10 shall be limited to less than 25 and 15 tons per year, respectively. Compliance with this limit rendered the requirements of 326 IAC 2-7-10.5 (Significant Source Modification) not applicable.
- (i) Pursuant to MSM 141-17101-00031, issued on March 12, 2003, the total single HAP input usage shall be limited to less than 10 tons per twelve consecutive month period. Compliance with this limit will rendered the requirements of 326 IAC 2-7-10.5 (Significant Source Modification) not applicable.
- (j) The facilities are subject to the requirements of 326 IAC 6-3-2.
- (k) Pursuant to PSD/SSM 141-11673-00031, issued on June 28, 2000 and SPM 141-16052-00031, issued on August 25, 2003, the spray booth shall be limited to 15 pounds of VOC per day. Compliance with this limit will render the requirements of 326 IAC 8-2-9 not applicable.
- (l) The facilities are limited pursuant to BACT under 326 IAC 2-2. See State Rule Applicability Section under 326 IAC 2-2 (Prevention of Significant Deterioration) for more information.
- (m) Pursuant to PSD/SSM 141-11673-00031, issued on June 28, 2000, the source is a minor PSD source for PM/PM10.
- (n) The spray booths are subject to the requirements of 326 IAC 8-2-9.
- (o) The spray booths are subject to the requirements of 326 IAC 8-2-2.

(a) This existing stationary source is major for PSD because the emissions of VOC are greater than two hundred fifty (>250) tons per year, and is not one of the twenty-eight (28) listed source categories.

(b) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, fugitive emissions are not counted toward the determination of PSD applicability.

### Federal Rule Applicability

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to existing 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 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.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Primer (Category #4) - PM	Wash Water	326 IAC 6-3-2	167	1.98	100	Y	N
Primer (Category #4) - VOC	Thermal Oxidizer	326 IAC 2-2	230	62.0	100	Y	N
Topcoat System (Category #5) - PM	Wash Water	326 IAC 6-3-2	180	4.36	100	Y	N
Topcoat System (Category #5) - VOC	Thermal Oxidizer	326 IAC 2-2	745	221	100	Y	Y
Blasting Room - PM	Cartridge Filters	326 IAC 6-3-2; 326 IAC 2-2	316	3.16	100	Y	N

This source has pollutant-specific emissions units as defined in 40 CFR 64.1 for VOC and PM with the potential to emit before controls equal to or greater than the major source threshold of 100 tons per year; that are subject to an emission limitation or standard for VOC and PM; and use a control device as defined in 40 CFR Part 64.1 to comply with that emission limitation or standard. Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring (CAM), are applicable to this source.

The following units are subject to the requirements of 40 CFR Part 64, Compliance Assurance Monitoring (CAM): Category #4, Category #5, and the Blasting Room.

- (1) Painting Operations, Category #4 is not a "large unit" as described in 40 CFR 64.5. Permittee has submitted a CAM plan pursuant to 40 CFR 64 as part of their Part 70 renewal application.
  - (2) Painting Operations, Category #5 is a "large unit" as described in 40 CFR 64.5. The Permittee has submitted a CAM plan as part of their Part 70 renewal. Monitoring of the pollutant-specific emission unit will be conducted pursuant to 40 CFR 64.
  - (3) The blasting room is not a "large unit" as described in 40 CFR 64.5. Permittee has submitted a CAM plan pursuant to 40 CFR 64 as part of their Part 70 renewal application.
- (b) The requirements of the New Source Performance Standard 40 CFR 60.390, Subpart MM - Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations (326 IAC 12) are not included in this permit. The prime coat operations, guide coat operations and topcoat operations at this source handle vehicles which are heavier than the 3,850 kilograms (kg) (8,480 lbs). Therefore, the vehicles do not meet the definition of light duty trucks.
  - (c) The requirements of the New Source Performance Standard 40 CFR 60.40c, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12) are not included in this permit. The two (2) 25.2 MMBtu per hour natural gas-fired boilers (identified as 010 and 011) were constructed prior to June 9, 1989, the applicability date for this rule.
  - (d) The requirements of the New Source Performance Standard 40 CFR 60.40c, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12) are included in this permit for the two (2) natural gas-fired low NOx boilers (identified as boiler #1 and boiler #2), which were constructed after June 9, 1989, the applicability date for this rule, and have a maximum heat input capacity

greater than 10 MMBtu per hour. Boilers #1 and #2 are subject to the following portions of Subpart Dc:

- (1) 40 CFR 60.40c(a) and (d);
- (2) 40 CFR 60.41c; and
- (3) 40 CFR 60.48c(a), (g), and (i).

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to these boilers except when otherwise specified in 40 CFR 60, Subpart Dc.

- (e) The requirements of the New Source Performance Standard 40 CFR 60.40c, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12) are not included in this permit. The two (2) 1.50 MMBtu per hour natural gas-fired boilers each have a maximum heat input capacity less than 10 MMBtu per hour.
- (f) The requirements of 40 CFR Part 60, Subpart Kb - New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984) are not included in this permit because although constructed after July 23, 1984, the applicability date for this rule, the two (2) organic storage tanks (identified as 101 and 107) each have a capacity less than 40 m<sup>3</sup> (10,567).

There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) included in this permit.

- (g) The requirements of 40 CFR Part 63, Subpart IIII - Surface Coating of Automobiles and Light Duty Trucks are included in this permit because automobiles and light duty-trucks are produced that are below the 8,500 pounds gross weight of a light duty-truck. The requirements are included for the H2 Plant vehicle production painting operations.

The following sections of 40 CFR Part 63, Subpart IIII shall be applicable to the above emission units:

- (1) 40 CFR 63.3080
- (2) 40 CFR 63.3081 (a), (b), (c)
- (3) 40 CFR 63.3082 (a), (b), (c), (d), (e), (g)
- (4) 40 CFR 63.3083 (b), (d)
- (5) 40 CFR 63.3091
- (6) 40 CFR 63.3092
- (7) 40 CFR 63.3093
- (8) 40 CFR 63.3094
- (9) 40 CFR 63.3100
- (10) 40 CFR 63.3101
- (11) 40 CFR 63.3110
- (12) 40 CFR 63.3120
- (13) 40 CFR 63.3130
- (14) 40 CFR 63.3131
- (15) 40 CFR 63.3150
- (16) 40 CFR 63.3151
- (17) 40 CFR 63.3152
- (18) 40 CFR 63.3160 (b), (c)
- (19) 40 CFR 63.3161
- (20) 40 CFR 63.3163
- (21) 40 CFR 63.3164
- (22) 40 CFR 63.3165
- (23) 40 CFR 63.3166
- (24) 40 CFR 63.3167 (a), (f)

- (25) 40 CFR 63.3168 (a), (b), (c), (g)
- (26) 40 CFR 63.3170 (b)
- (27) 40 CFR 63.3171
- (28) 40 CFR 63.3173
- (29) 40 CFR 63.3175
- (30) 40 CFR 63.3176
- (31) Applicable portions of Table 1, Table 2, Table 3, and Table 4
- (31) Appendix A

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility as described in this section except when otherwise specified in 40 CFR 63, Subpart IIII.

- (h) The requirements of 40 CFR Part 63, Subpart MMMM - Surface Coating of Miscellaneous Metal Parts and Products are included in this permit for the surface coating facilities in the H1 Plant, surface coating facilities in the Armour building, and H2 Plant vehicle production painting operations.

The following sections of 40 CFR Part 63, Subpart MMMM shall be applicable to the above emission units:

- (1) 40 CFR 63.3880
  - (2) 40 CFR 63.3881 (a)(1), (a)(2), (b)
  - (3) 40 CFR 63.3882
  - (4) 40 CFR 63.3883 (b), (d)
  - (5) 40 CFR 63.3890 (b)(1)
  - (6) 40 CFR 63.3891 (b)
  - (7) 40 CFR 63.3892 (a)
  - (8) 40 CFR 63.3893 (a), (c)
  - (9) 40 CFR 63.3900 (a)(1), (b)
  - (10) 40 CFR 63.3901 Table 2
  - (11) 40 CFR 63.3910 (a), (b), (c)(1) through (c)(7), (c)(8)(ii), (c)(10)
  - (12) 40 CFR 63.3920 (a)(1) through (a)(4), (a)(6)
  - (13) 40 CFR 63.3930 (a), (b), (c)(1), (c)(3), (d), (e), (f), (g), (h), (j)
  - (14) 40 CFR 63.3931
  - (15) 40 CFR 63.3950
  - (16) 40 CFR 63.3951
  - (17) 40 CFR 63.3952
  - (18) 40 CFR 63.3980
  - (19) 40 CFR 63.3981
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63.460, Subpart T - National Standards for Halogenated Solvent Cleaning (326 IAC 14) are not included because the insignificant degreasers at the source do not use any halogenated HAP solvents. They use only mineral spirits.
  - (j) The requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63, Subpart PPPP – Surface Coating of Plastic Parts are not included because no coatings are applied to plastic parts at this source; the predominant activity is the surface coating of metal substrates. Pursuant to 40 CFR 63.4481(e)(2)(i) compliance with the emission limitations contained in 40 CFR Part 63, Subpart MMMM constitutes compliance with 40 CFR 63, Subpart PPPP.

### State Rule Applicability – Entire Source

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

This source was constructed in 1983 and it is not in 1 of the 28 PSD source categories. This source is a major PSD source. The Permittee shall comply with the 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) as discussed below:

- (a) Pursuant to Registration CP141-3332-00031, issued January 10, 1994 the coatings applied by booth 009 shall comply with the following:
- (1) The total VOC input to booth 009, including clean up solvents, shall not exceed 25 tons per year.
  - (2) The coatings applied by booth 009 shall be limited such that the total PM emissions shall not exceed 5.71 pounds per hour.
  - (3) The coatings applied by booth 009 shall be limited such that the total PM10 emissions shall not exceed 3.42 pounds per hour.

Compliance with these limits above limit VOC, PM, and PM10 to less than 25, 25, and 15 tons per year, respectively, and will render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification.

- (b) Pursuant to CP 141-5270-00031, issued May 1, 1996 and T141-6023-00031, issued on February 25, 1999 the coatings applied by paint booth 008 shall comply with the following:
- (1) The total VOC input to booth 008, including clean up solvents, shall not exceed 9.13 pounds per hour.
  - (2) The coatings applied by booth 008 shall be limited such that the total PM emissions shall not exceed 5.71 pounds per hour.
  - (3) The coatings applied by booth 008 shall be limited such that the total PM10 emissions shall not exceed 3.42 pounds per hour.

Compliance with these limits above limit VOC, PM, and PM10 to less than 40, 25, and 15 tons per year, respectively, and will render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification.

- (c) Pursuant to T141-6023-00031 issued February 25, 1999, and revised by T141-17644-00031, the permit issued by St. Joseph County Health Department and upheld by Federal Case No. S87-377 and Federal Case No. 93-3538, the potential to emit of VOC from the existing source (coating booths 001 through 007, and insignificant degreasers) shall be limited to a total of 375.8 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month. The source-wide PTE of VOC after this modification was greater than 250 tons per year, and the source was a major source under PSD.
- (d) A PSD/SSM 141-11673-00031 was issued on June 28, 2000 to the source for an addition of a new H2 Plant Vehicle Production (process ovens and heaters (Category #1), boilers (Category #2), Body Shop, Painting Operations (Categories #3 through #11), and Storage Tanks (Category #12), and various insignificant activities). This modification had a potential to emit greater than 40 tons per year VOC and was therefore subject to the requirements of 326 IAC 2-2 (PSD). Pursuant to 326 IAC 2-2 (PSD) the BACT requirements shall be limited as follows:

VOC BACT FOR THE H2 VEHICLE PRODUCTION PLANT		
Operation	BACT Limit	Control Technology
Source wide PSD Limit	<p>The H2 plant production rate shall be limited to 86,000 vehicles per year. Daily maximum production shall be limited to 364 vehicles, and each vehicle produced shall be limited to VOC emissions of 6.0 pounds per vehicle.</p> <p>The source wide VOC emissions from the H2 vehicle plant shall be limited to</p>	<p>The source shall use raw material usage limits and regenerative thermal oxidizers and other control technologies mentioned below to restrict the new H2 vehicle VOC emissions to 260 tons per year.</p>

VOC BACT FOR THE H2 VEHICLE PRODUCTION PLANT		
Operation	BACT Limit	Control Technology
	260 tons per year.	
Miscellaneous natural gas-fired process ovens and various heaters (Category #1)		Low NOx Burners
Two natural gas-fired boilers, boiler #1 and boiler #2 (Category #2)		Low NOx Burners
ELPO (E-Coat) System (Category #3)	0.04 lb VOC/gal applied coating solids (lb/gacs)	Regenerative Thermal Oxidizer
Combined Primer Surfacer Guidecoat and Topcoat Systems (Category #4 and #5) *	4.5 lb/gacs	Regenerative Thermal Oxidizer-Automatic zone only and Cure Oven; the destruction efficiency shall be 95%
Assembly Final Line-Fluid Filling (Category #7)		Good operating practices on the fluid line is (a) the use of stage 2 vapor recovery system, (b) minimizing spills, and (c) closing the receiving vessel after it has been filled
Final and Spot Repair (Category #8)	Category #8 is limited to VOC input usage of less than 15 pounds per day to render the requirements of 326 IAC 8-2-9 not applicable. This limit satisfies PSD BACT requirements.	VOC material usage limit. Area not being painted is masked to prevent overspray, thus minimizing the use of clean-up solvent
Assembly Final Line (Start-up and Roll Test) (Category #9)		Good operating practices
Miscellaneous Solvent, Booth Cleanup and Purge (Category #10)		Capture spent solvents, use of low or zero VOC cleaners where applicable; use of paint booth and equipment masking; capturing of paint line solvent for recycling; and water blasting of vehicle carriers.  The automatic paint applicator lines purging, paint booths stripper, paint booths mask and paint booths general cleaner (primer surfacer and topcoat) shall be controlled by the Regenerative Thermal Oxidizer.
Miscellaneous Sealers and Adhesives (Category #11)	3.5 lb/gal less water	The use of materials with low VOC content
Bulk Storage Tanks (Category #12)		The use of submerged fill pipes and pressure relief valves on the gasoline storage tanks

\* On March 14, 2007, the source was issued Major PSD/SSM 141-22343-00031 for the reopening of the PSD BACT for the Primer System and the Topcoat.

- (e) On May 8, 2002, the Permittee was issued SPM 141-15219-00031 for the removal of Deadner spray booth (Category # 6) facilities at the plant. Pursuant to PSD/SSM 141-11673-00031 the Spot and Final Repair Station (Category #8) were limited to a total VOC limit of 15 pounds of VOC per day to avoid the applicability of 326 IAC 8-2-9. The source increased production and VOC input and was therefore subject to 326 IAC 8-2-9. To comply with the VOC limits in the rule the Spot and Final Repair Operations used carbon adsorption units to control the VOC emissions and comply with the 15 pound per day BACT limit.
- (f) On March 12, 2003, the Permittee was issued MSM 141-17101-00031 for the addition of the Zinc Rich Primer Dip Coating Booth. The potential to emit of this modification were less than 40, 25, and 15 tons per year for VOC, PM, and PM10, respectively. Therefore, this modification was not subject to the requirements of 326 IAC 2-2. However, the potential VOC emissions were limited to less than 25 tons per year pursuant to 326 IAC 2-7-10.5(f).
- (g) On June 10, 2003, the source was issued MSM 141-16912-00031 for the addition of surface coating spray booth 001b. The potential to emit of this modification were less than 40, 25, and 15 tons per year for VOC, PM, and PM10, respectively. However, since the Permittee was issued this permit in close proximity with the MSM 141-17101-00031 (issued March 12, 2003), in order to avoid the issue of PSD circumvention for the issued permit (MSM 141-17101-00031) and the proposed modification (MSM 141-16912-

00031), the Permittee requested a limit on the total VOC input usage at Booth 001b of less than 14 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Therefore, the two permits had a combined limit of less than 40 tons of VOC per year. Compliance with these limits ensured 326 IAC 2-2 (PSD) was not applicable to the 2003 modifications. MSM 141-16912-00031 revised the VOC limit for Booth 008 from 3.25 tons per month to 3.25 tons per year.

- (h) On August 25, 2003, the source was issued SPM 141-16052-00031 for the addition of Final and Spot Repair Station (Category #8). The potential to emit of VOC, PM and PM10 from this modification were less than 40, 25, and 15 tons per year, respectively. Also, the Permittee requested a limit of less than 15 pounds of VOC per day (as originally stated in PSD/SSM 141-11673-00031, issued June 28, 2000) instead of the operation of the existing carbon adsorber system, to ensure compliance with 326 IAC 8-2-9. Therefore, the Final and Spot Repair Booth (Category #8) shall be limited to a VOC input of less than 15 pounds of VOC per day. This is equivalent to 2.70 tons of VOC per year.
- (i) On March 14, 2007, the source was issued Minor PSD/SSM 141-23096-00031 for the addition of a service parts booth, a metal parts blasting room, and various storage tanks. The allowable PM/PM10 emission rate from the two processes shall be limited by the following:
  - (1) The PM emissions from the Metal Parts Blasting Room and the service parts booth shall not exceed 5.71 pounds per hour.
  - (2) The PM10 emissions from the Metal Parts Blasting Room and the service parts booth shall not exceed 3.42 pounds per hour.

The potential to emit of PM and PM10 of the modification after controls was less than 25 and 15 tons per year, respectively. Uncontrolled VOC PTE from the service parts booth were less than 40 tons per year of VOC. Compliance with these limits will keep the requirements of 326 IAC 2-2 (PSD) are not applicable to this modification.

- (j) PSD Permit No. 141-11673-00031, issued on June 28, 2000 required individual limits for the primer and the topcoat. On March 14, 2007, the source was issued Major PSD/SSM 141-22343-00031 for the reopening of the PSD BACT for the Primer System and the Topcoat. Because the primer and topcoat operations share a common flash-off area which results in one common coating system a combined limit better reflected the configuration of the coating operation. The BACT for the combined primer / topcoat systems was limited as follows:
  - (1) A combined system BACT emission limit of 4.5 pounds of VOC per gallon of applied coating solids (4.5 lbs/gacs).
  - (2) Use of a regenerative thermal oxidizer (RTO) with destruction efficiency of 95% to control VOC emissions from the primer automatic zone, topcoat automatic zone (basecoat and clearcoat application) and primer and topcoat curing ovens;
  - (3) Good work practices which includes the following:
    - (A) The use of robotic paint application system to minimize paint usage.
    - (B) The use of waterbased coatings where practical to maintain internal quality specifications.
    - (C) All paint mixing containers, other than day tanks equipped with continuous agitation systems, which contain organic VOC containing coatings and other materials shall have a cover with no visible gaps in place at all times except when material is being added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.

- (D) Solvents sprayed during cleanup and color changes shall be directed into solvent collection containers.
  - (E) Solvent collection containers shall be kept closed when not in use.
  - (F) Clean-up rags with solvent shall be stored in closed containers.
  - (G) VOC emissions shall be minimized during cleaning of storage, mixing, and conveying equipment
  - (H) Minimization of major paint repair.
- (k) On September 28, 2007, the source was issued SPM 141-24696-00031 for the incorporation of NESHAP requirements. There were no new or modified emission units proposed in this modification and no changes in the source-wide potential to emit.

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

- (a) H1 Plant (Spray Booths 001 through 009, Booth 001b, Zinc Rich Primer Dip Booth, Boilers 010 and 011)

The spray booths 001 through 009 are not subject to the requirements of 326 IAC 2-4.1 because they were each constructed prior to July 27, 1997, the applicability date for this rule.

Pursuant to MSM 141-17101-00031 issued March 12, 2003, the total single HAP input to Zinc Rich Primer Dip booth shall not exceed 10 tons per twelve (12) consecutive month period with compliance determined at the end of each month. The potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Compliance with this limit renders 326 IAC 2-2 (PSD) not applicable to the 2003 modification.

Pursuant to MSM 141-16912-00031 issued June 10, 2003, the total single HAP input to spray booth 001b shall not exceed 10 tons per twelve (12) consecutive month period with compliance determined at the end of each month. The total combined HAP input to spray booth 001b shall not exceed 25 tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with these limits renders 326 IAC 2-2 (PSD) not applicable to the 2003 modification.

- (b) H2 Plant Vehicle Production (Category #1, Category #2 and the Body Shop)  
Although constructed after July 27, 1997, the applicability date for this rule, the Body Shop is not subject to the requirements of 326 IAC 2-4.1 because it has potential to emit of a single HAP or combination of HAPs less than ten (10) and twenty-five (25) tons per year, respectively. Any change or modification which would increase the potential to emit of a single HAP or combination of HAPs from the Body Shop, equal to or greater than ten (10) and twenty-five (25) tons per year, respectively, shall require prior approval by IDEM, OAQ.

The potential to emit of a single HAP or combination of HAPs from Category #1 and #2 are less than ten (10) and twenty-five (25) tons per year, respectively. Therefore, 326 IAC 2-4.1 is not applicable.

- (c) Paint Operations for the H1 and H2 Plants (Category #3 through #5, #8, #10, and #11), and Category #7, #9, and #12

Category #3 through #5, and #7 through #12 are subject to the requirements of 326 IAC 2-4.1 because they each have the potential to emit of a single HAP and combination of HAPs greater than ten (10) and twenty-five (25) tons per year, respectively.

Pursuant to PSD/SSM 141-11673-00031, issued June 28, 2000, the requirements of 326 IAC 2-4.1 are satisfied by the BACT requirements under 326 IAC 2-2-3(a) as discussed under the Entire Source Section for Prevention of Significant Deterioration (326 IAC 2-2).

**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). The source also has potential to emit greater than or equal to 250 tons per year of VOC; therefore, an emission statement covering the previous calendar year must be submitted by July 1 annually. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

**326 IAC 5-1 (Opacity Limitations)**

This source is located in the part of St. Joseph County specified in 326 IAC 5-1-1(c)(6), pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**326 IAC 6-4 (Fugitive Dust)**

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

**326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)**

Although, this source is located in the part of St. Joseph County specified in 326 IAC 6-5-1(a)(2)(D) it is not subject to the requirements of 326 IAC 6-5. The source was constructed before December 13, 1985 and the potential to emit of fugitive particulate emissions is less than twenty-five (25) tons per year.

**State Rule Applicability – The Surface coating facilities in the H1 production plant (Spray Booths 001 through 007, Zinc Rich Primer Dip Booth, Booth 001b, Service Parts Booth, Metal Parts Blasting Room) and The Surface coating facilities in the Armour Building (Spray Booths 008 and 009, Bumper Booth)**

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**

Pursuant to 326 IAC 6-3-2(d), the surface coating booths identified as spray booths 001 through 009, booth 001b, and the bumper booth shall use fabric filters for particulate control at all times the surface coating booths are in operation. The control device shall be operated in accordance with manufacturer's specifications.

The Zinc Rich Primer Dip Booth is not subject to the requirements of 326 IAC 6-3-2 because the primer is applied by dipping and does not emit any particulate matter.

**326 IAC 8-1-6 (Best Available Control Technology (BACT))**

Although constructed after January 1, 1980, the applicability date for this rule, the spray booths 001 through 009, booth 001b, and the Zinc Rich Primer Dip booth are not subject to the requirements of 326 IAC 8-1-6 because they are each subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations).

**326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)**

- (a) Spray booths 001 through 007 are subject to the requirements of 326 IAC 8-2-9 because they were each constructed after November 1, 1980 and each have potential VOC emissions of greater than twenty-five (25) tons per year.

- (b) Zinc rich primer dip booth, Service parts booth, Spray booths 008, 009, and 001b are subject to the requirements of 326 IAC 8-2-9 because they were each constructed after July 1, 1990 and have actual emissions of greater than fifteen (15) pounds VOC per day before add-on controls.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volume weighted average volatile organic compound (VOC) content of coating applied to the metal part of the Armour Building and the H1 plant shall be limited as follows:

Type of Coating	VOC Emissions Limit (pounds per gallon of coatings less water)
Clear Coatings	4.3
Forced Warm Air Dried Coatings	3.5
Air Dried Coatings	3.5
Extreme Performance Coatings	3.5
All Other Coating	3.0

Based on the MSDS submitted by the source and the calculations made, the spray booths are in compliance with this requirement.

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

**State Rule Applicability – Boilers 010 and 011, Boilers #1 and #2, and Insignificant Boilers**

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

- (a) The two (2) 25.2 MMBtu per hour natural gas-fired boilers (010 and 011), are subject to the requirements of 326 IAC 6-2-4 because they were each constructed after September 21, 1983. Pursuant to 326 IAC 6-2-4, the particulate matter (PM) emissions shall not exceed 0.39 pound per million Btu heat input.

This limit was calculated using the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = pounds of particulate matter emitted per million Btu heat input (lb/MMBtu)  
 Q = total source heat input capacity (Q = 50.4 MMBtu/hour)

- (b) The two (2) natural gas-fired boilers #1 and #2 (Categories #1 and #2), each rated at 25.0 MMBtu per hour and the two (2) insignificant natural gas fired boilers, each rated at 1.5 MMBtu per hour, are subject to the requirements of 326 IAC 6-2-4 because they were each constructed after September 21, 1983. Pursuant to 326 IAC 6-2-4, the particulate matter (PM) emissions from the two (2) boilers shall each not exceed 0.33 pound per million Btu heat input.

This limit was calculated using the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = pounds of particulate matter emitted per million Btu heat input (lb/MMBtu)  
 Q = total source heat input capacity (Q = 103.4 MMBtu/hour)

Emission calculations based on AP-42 emission factors indicate that each boiler is able to comply with this limit without using a control device.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitation)

The facilities identified as Boilers 010, 011, #1, and #2 are not subject to the requirements of 326 IAC 7-1.1 because they do not have the potential to emit greater than 25 tons per year or 10 pounds per hour of SO<sub>2</sub>.

**State Rule Applicability – Degreasing Operations**

326 IAC 8-3-2 (Cold Cleaner Operations)

The degreasing operations that do not exceed 145 gallons per 12 months are subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations) because they were constructed after January 1, 1980 and perform organic solvent degreasing operations without remote solvent reservoirs.

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for the insignificant degreasing operations, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with an emissions unit for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The degreasing operations that do not exceed 145 gallons per 12 months are subject to the requirements of 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control) because they were constructed prior to July 1, 1990 and are located in St. Joseph County.

- (a) Pursuant to 326 IAC 8-3-5(a)(Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) the solvent volatility is greater than two (2) kilo-Pascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
    - (B) the solvent is agitated; or
    - (C) the solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kilo-Pascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under

the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kilo-Pascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (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) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the Permittee shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

**State Rule Applicability – Automobiles, light duty trucks, and H2 vehicles production plant (low NOx process ovens and heaters, Body Shop, Paint Operations: Category #3, #4, #5, #7, #8, #9, #10, and #11)**

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

The natural gas-fired combustion sources (ovens and heaters) are not subject to the requirements of 326 IAC 6-2-4 because they are not sources of indirect heating.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) The application method for Category #3 and Category #11 are electrocoating and hand application, respectively. The material transfer efficiency is 100 percent. Neither operation emits any particulate matter. Therefore, the requirements of 326 IAC 6-3-2 do not apply.
- (b) Pursuant to the definition in 326 IAC 6-3-1.5(5), solvent purge and cleanup activities (Category #10) are not surface coating. Therefore, the requirements of 326 IAC 6-3-2 do not apply.
- (b) Pursuant to 326 IAC 6-3-2(d), the surface coating booths identified as Category #4, #5, shall use wash water for particulate control at all times the surface coating booths are in operation. The control device shall be operated in accordance with manufacturer's specifications.

Pursuant to 326 IAC 6-3-2(d), the surface coating booths identified as Category #8 shall use dry filters for particulate control at all times the surface coating booths are in operation. The control device shall be operated in accordance with manufacturer's specifications.

- (c) Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the Metal Parts Blasting Room shall not exceed 7.58 pounds per hour when operating at a process weight rate of 2.5 tons per hour.

The pounds per hour limitations were calculated using the following equation:

Interpolation of the data for the process weight rates of up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

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

326 IAC 8-1-6 (Best Available Control Technology (BACT))

- (a) Although constructed after January 1, 1980, the applicability date for this rule, Category #3, #4, #5, #8 and #11 are not subject to the requirements of 326 IAC 8-1-6 because they are subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations).
- (b) Category #7 and #9 are subject to the requirements of 326 IAC 8-1-6 because they were each constructed after January 1, 1980, the applicability date for this rule, and they each have potential VOC emissions greater than twenty-five (25) tons per year. Compliance with 326 IAC 8-1-6 is satisfied as described under the Entire Source Section: 326 IAC 2-2 (PSD).
- (c) Category #10 is subject to the requirements of 326 IAC 8-1-6 because it was constructed after January 1, 1980, the applicability date for this rule and has potential VOC emissions greater than twenty-five (25) tons per year. Compliance with 326 IAC 8-1-6 is satisfied as described under the Entire Source Section for Prevention of Significant Deterioration (326 IAC 2-2).

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

- (a) Category #3, #4, #5 and #11 are subject to the requirements of 326 IAC 8-2-9 because they were each constructed after July 1, 1990 and each have actual emissions greater than fifteen (15) pounds per day before add-on controls.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating applied to the metal parts of the automobiles, light duty trucks, and H2 vehicles production plant shall be limited as follows:

Type of Coating	VOC Emissions Limit (pounds per gallon of coatings less water)
Clear Coatings	4.3
Forced Warm Air Dried Coatings	3.5
Air Dried Coatings	3.5
Extreme Performance Coatings	3.5
All Other Coating	3.0

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

The VOC input usage from the off-line Spot and four (4) Final Repair Stations, identified as No. 1, No. 2, No. 3, and No. 4 (Category #8) shall be limited to a total of less than 15 pounds per day (lbs/day). Compliance with this limit shall make 326 IAC 8-2-9 (Miscellaneous Metal Coating) and 326 IAC 8-2-2 (Automobile and light duty truck coating operations) not applicable. This limit shall also satisfy the PSD BACT limit.

Category #3 and #11 use daily averaging to comply with a VOC emission limitations above.

Category #4 and #5 avoid the requirements of 326 IAC 8-2-9 because they reduce VOC emissions with thermal oxidizers. Category #7, #9, and #12 are not subject to the requirements of 326 IAC 8-2-9 because they do not perform metal coating operations.

**326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations)**

The Body Shop and Painting Operations (Categories #3 through #11) paint operations are capable of producing automobile and light duty trucks. Therefore, the Permittee shall not cause, allow or permit the discharge into the atmosphere of any volatile organic compounds from the application, flash-off, and curing of prime and topcoat coatings on automobile and light-duty truck bodies, hoods, fenders, cargo boxes, doors and grill opening panels to exceed:

Type of Coating	VOC Emissions Limit (pounds per gallon of coatings less water)
Prime application, flash off area and oven operations	1.9
Topcoat application, flash off area and oven operations	2.8
Final repair application, flash off area and oven operations	4.8

Note: EPA has indicated that the 1.9 pound per gallon less water limit under this rule should be a combined limit between the E-Coat and Primer operation, since E-Coat is considered a primer.

The VOC content limitations under this rule shall be determined using a daily volume weighted average of the coatings applied less water using the following equation:

$$A = \frac{\sum_{i=1}^n C_i \times U_i}{\sum_{i=1}^n U_i \times (1 - D_i)} \times (1 - CE)$$

where:

A = daily or monthly volume weighted average, lb VOC/gal less water

C = VOC content of coating, lb VOC/gal

U = maximum coating usage, gal/day or gal/month

D = coating volume % water

CE= overall control efficiency of the control system

n = no. of coatings used during the day or month

i = Single material

**State Rule Applicability – Insignificant Activities**

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**

Pursuant to 326 IAC 6-3-1(b)(9) and 326 IAC 6-3-1(b)(10), the welding and cutting operations are exempt from 326 IAC 6-3-2 because the welding uses less than six hundred twenty-five (625)

pounds of rod or wire per day and the flame cutting cuts less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less.

Pursuant to 326 IAC 6-3-2(e)(2) (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the grinding, machining, sanding, brazing equipment, soldering equipment, and detail sanding prep shall be limited to less than 0.551 pounds per hour when operating at a maximum process weight less than 100 pounds per hour.

#### 326 IAC 8-4-6 (Gasoline Dispensing Facilities)

The Bulk storage tanks (Category #12) used for dispensing gasoline, are subject to the requirements of 326 IAC 8-4-6 because they were installed after July 1, 1989 and are located in St. Joseph County.

- (a) Pursuant to 326 IAC 8-4-6(b), the Permittee shall not allow the transfer of gasoline between any transport and any storage tank unless such tank is equipped with the following:
  - (1) A submerge fill pipe.
  - (2) Either a pressure relief valve set to release at no less than seven-tenths (0.7) pounds per square inch or an orifice of five-tenths (0.5) inch in diameter.
  - (3) A vapor balance system connected between the tank and the transport, operating according to manufacturer's specifications.
- (b) Pursuant to 326 IAC 8-4-6(b), if the Permittee is absent during loading, it is the responsibility of the owner or operator of the transport to make certain the vapor balance system is connected between the transport and the storage tank and is operating according to the manufacturer's specifications.
- (c) The storage tanks dispense gasoline to fuel the manufactured vehicles for testing. The source has installed submerged fill pipes and pressure relief valves on the gasoline storage tanks and shall employ a vapor balancing system for gasoline tank truck unloading activities, to comply with 326 IAC 8-4-6.

#### 326 IAC 8-9 (Volatile Organic Liquid Storage Tanks)

The requirements of 326 IAC 8-9 (Volatile Organic Liquid Storage Tanks) are not applicable to the source because this source is not located in Clark, Floyd, Lake or Porter County [326 IAC 8-9-1(a)]. It is located in St. Joseph County.

### Testing Requirements

- (a) In order to demonstrate compliance with 326 IAC 2-2 (PSD BACT limit) and 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) the Permittee shall perform testing on the following emission units within five (5) years from the date of the last valid compliance demonstration test using a method acceptable to IDEM, OAQ. The Permittee conducted the required testing on September 11-28, 2007. At this time the test results have not yet been validated:
  - (1) The compliance stack tests shall be performed on Regenerative Thermal Oxidizer (RTO) to determine the operating temperature that will achieve the following destruction efficiency and to determine the capture system efficiency for the coating systems to verify compliance with the VOC limits:

Emission Unit	Destruction Efficiency
E-Coat / ELPO (Category #3)	95%
Primer (Category #4) / Topcoat System (Category #5)	95%

This test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

- (2) The compliance stack tests for Category #4 and Category #5 coating systems shall utilize Method 25 for destruction efficiency, or other methods as approved by the Commissioner for capture efficiency. This test shall be repeated at least once every two and a half (2.5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.
  - (3) The compliance stack tests shall be performed on the Category #4 and Category #5 coating systems for PM and PM10 utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM10, or other methods as approved by the Commissioner. The PM and PM10 testing is required to demonstrate that the source is not major for either pollutant under 326 IAC 2-2 (PSD). This test shall be repeated at least once every two and half (2.5) years from the date of this valid compliance demonstration. PM10 includes filterable and condensable PM10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.
- (b) No other VOC or HAP testing is required in this Part 70 Permit because compliance with the other limits for VOC and HAP shall be determined using Material Data Safety Sheets (MSDS) and records of the amount of material applied.
  - (c) In order to demonstrate compliance with 326 IAC 2-2 (PSD) limits, within 180 days after the issuance of this permit, the Permittee shall perform PM and PM10 testing on booth 009, booth 008, the Metal Parts Blasting Room, and the service parts booth using methods as approved by the Commissioner. These tests shall be repeated at least once every 5 years from the date of a valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

## Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also 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 monitoring requirements applicable to this source are as follows:

<b>Control</b>	<b>Parameter</b>	<b>Frequency</b>	<b>Range</b>	<b>Excursions and Exceedances</b>
Metal parts blasting room cartridge filters	Visible Emissions	Daily	Normal-Abnormal	Response Steps
Surface Coating Operations (007, 008, 009, 001b, the service parts booth, and the bumper booth) controlled by dry particulate filters	Verify Operation	Daily	Normal-Abnormal	Response Steps
	Inspect Overspray	Monthly	Normal-Abnormal	Response Steps
Surface Coating Operations (001, 002, 003, 004, 005, and 006) controlled by water wash	Operating Temperature	3-hour average temperature	1350°F	Response Steps
	Duct Pressure or Fan Amperage	Daily	Normal-Abnormal	Response Steps
Operations controlled by Thermal Oxidizers, including: a) Misc. heaters and ovens (Category #1), b) Electrodeposition dip (Category #3) c) Primer System (Category #4), d) Topcoat System (Category #5)	Verify Operation	Daily	Normal-Abnormal	Response Steps
	Inspect Overspray	Monthly	Normal-Abnormal	Response Steps
Final and Spot Repair (Category #8) controlled by dry particulate filters	Verify Operation	Daily	Normal-Abnormal	Response Steps
Primer/Topcoat System (Categories #4 and #5) controlled by water wash	Inspect Overspray	Monthly	Normal-Abnormal	Response Steps

These monitoring conditions are necessary to ensure compliance with the following State and Federal Rules:

- (a) The cartridge filters used in conjunction with Metal parts blasting room must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 6-3-2, and 40 CFR Part 64 (CAM);
- (b) The dry filters used in conjunction with Surface Coating Operations (007, 008, 009, 001b, the service parts booth, and the bumper booth) must operate properly to ensure compliance 326 IAC 6-3-2; The water wash used in conjunction with Surface Coating Operations (001, 002, 003, 004, 005, and 006) controlled by must operate properly to ensure compliance with 326 IAC 6-3-2;
- (c) The regenerative thermal oxidizer (RTO) used in conjunction with Categories #3, #4, #5 must operate properly to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 8-1-6, 326 IAC 2-4.1, 326 IAC 2-7 (Part 70), and 40 CFR Part 64 (CAM); and
- (d) The dry filters used in conjunction with Final and Spot Repair (Category #8) must operate properly to ensure compliance 326 IAC 6-3-2; The water wash used in conjunction with Primer/Topcoat System (Categories #4 and #5) controlled by must operate properly to ensure compliance with 326 IAC 6-3-2 and 40 CFR Part 64 (CAM),

## **Recommendation**

The staff recommends to the Commissioner that the Part 70 permit renewal be approved. This recommendation is based on the following facts and conditions:

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

An administratively complete Part 70 permit renewal application for the purposes of this review was received on May 21, 2003. Additional information was received on March 28, 2007.

There was no notice of completeness letter mailed to the Permittee.

## **Conclusion**

The operation of this vehicle production plant used to manufacture vehicles for military and commercial use shall be subject to the conditions of this Part 70 permit renewal 141-17644-00031.

**Appendix A: Emissions Calculations  
Summary**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM10	SO <sub>2</sub>	VOC	CO	NOx	HAPs
Dip Coating Booth	-	-	-	37.6	-	-	24.0
NG combustion (Boiler 010 and 011)	0.41	1.64	0.13	1.19	18.2	21.6	0.41
NG combustion (Insignificant Boilers)	0.02	0.10	0.01	0.07	1.08	1.29	0.02
NG combustion (Category #1)	0.97	3.87	0.31	2.80	42.8	25.5	0.96
NG combustion (Category #2)	0.41	1.63	0.13	1.18	18.0	10.7	0.41
Surface Coating (Category #3)	0.00	0.00	-	10.7	-	-	0
Surface Coating (Category #4)	167	167	-	230	-	-	143
Surface Coating (Category #5)	180	180	-	745	-	-	133
Surface Coating (Category #7)	-	-	-	4.32	-	-	-
Surface Coating (Category #8)	7.57	7.57	-	41.1	-	-	12.7
Surface Coating (Category #9)	0.46	0.46	-	0.32	2.33	0.79	-
Surface Coating (Category #10)	-	-	-	76.9	-	-	197
Surface Coating (Category #11)	-	-	-	45.0	-	-	203
Surface Coating (Category #12)	-	-	-	5.74	-	-	-
Service parts booth	4.04	4.04	-	25.7	-	-	17.3
Blast Surface Prep	186	4.25	-	-	-	-	-
<b>TOTAL =</b>	<b>548</b>	<b>371</b>	<b>0.57</b>	<b>1,228</b>	<b>82.4</b>	<b>59.9</b>	<b>732</b>

Process/emission unit	Potential to Emit After Issuance (tons/year)						
	PM	PM10	SO <sub>2</sub>	VOC	CO	NOx	HAPs
Spray Booths (001 though 007)	-	-	-	377	-	-	-
NG combustion (Boiler 010 and 011)	0.41	1.64	0.13		18.2	21.6	0.41
NG combustion (Insignificant Boilers)	0.02	0.10	0.01		1.08	1.29	0.02
Spray Booth 008	25.0	15.0	-	3.25	-	-	-
Spray Booth 009	25.0	15.0	-	24.0	-	-	-
Spray Booth 001b	25.0	15.0	-	14.0	-	-	25.0
Dip Coating Booth			-	25.0	-	-	10.0
NG combustion (Category #1)	0.97	3.87	0.31	2.80	42.8	25.5	0.96
NG combustion (Category #2)	0.41	1.63	0.13	1.18	18.0	10.7	0.41
Surface Coating (Category #3)	0.00	0.00	-	0.53	-	-	0
Surface Coating (Category #4)	1.98	1.98	-	62.0	-	-	41.8
Surface Coating (Category #5)	4.36	4.36	-	221	-	-	39.9
Surface Coating (Category #7)	-	-	-	4.32	-	-	-
Surface Coating (Category #8)	0.38	0.38	-	2.70	-	-	12.7
Surface Coating (Category #9)	0.46	0.46	-	0.32	2.33	0.79	-
Surface Coating (Category #10)	-	-	-	76.9	-	-	191
Surface Coating (Category #11)	-	-	-	45.0	-	-	203
Surface Coating (Category #12)	-	-	-	5.74	-	-	-
Service parts booth	0.20	0.20	-	25.7	-	-	17.3
Blast Surface Prep	1.86	0.04	-	-	-	-	-
<b>TOTAL =</b>	<b>86.0</b>	<b>59.7</b>	<b>0.57</b>	<b>891</b>	<b>82.4</b>	<b>59.9</b>	<b>542</b>

Category #6 surface coating operations were not installed, see SPM No. 141-15219-00031 for additional details.

**Appendix A: Emissions Calculations  
 Natural Gas Combustion Only  
 MM BTU/HR <100  
 Small Industrial Boiler (CATEGORY #1)**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

Heat Input Capacity  
 (MMBtu/hr)  
 119

Potential Throughput  
 (MMCF/yr)  
 1,019

	Pollutant					
Emission Factor (lb/MMCF)	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	50.0 **see below	5.5	84.0
Potential to Emit (tons/yr)	0.97	3.87	0.31	25.5	2.80	42.8

CATEGORY #1 includes: Miscellaneous low NOx process ovens and various heaters (109 MMBtu/hr) and Thermal Oxidizer (9.7 MMBtu/hr).

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

\*\*Emission Factors for NOx (Low NOx Burner) = 50 lb/MMCF

All emission factors are based on normal firing.

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

**Methodology**

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Potential to Emit (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF) x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations  
 Natural Gas Combustion Only  
 MM BTU/HR <100  
 Small Industrial Boiler (CATEGORY #2)**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

Heat Input Capacity  
 (MMBtu/hr)  
 50.0

Potential Throughput  
 (MMCF/yr)  
 429

	Pollutant					
Emission Factor (lb/MMCF)	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	50.0 **see below	5.5	84.0
Potential to Emit (tons/yr)	0.41	1.63	0.13	10.7	1.18	18.0

CATEGORY #2 includes: two (2) 25 MMBtu/hr natural-gas-fired low NOx boilers.

Pursuant to 326 IAC 6-2-4, the PM emissions from boilers #1 and #2 shall not exceed 0.32 pound per MMBtu. Emission calculations based on AP-42 emission fac each boiler unit is able to comply with this limit without using a control device.

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

\*\*Emission Factors for NOx (Low NOx Burner) = 50 lb/MMCF

All emission factors are based on normal firing.

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

**Methodology**

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Potential to Emit (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF) x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations  
 Natural Gas Combustion Only  
 MM BTU/HR <100  
 Small Industrial Boiler (Boiler 010 and 011)**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

Heat Input Capacity  
 (MMBtu/hr)  
 50.4

Potential Throughput  
 (MMCF/yr)  
 433

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor (lb/MMCF)	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential to Emit (tons/yr)	0.41	1.64	0.13	21.6	1.19	18.2

Two (2) 25.2 MMBtu/hr natural gas-fired boilers (010 and 011) located at the Military HUMMER (H-1) vehicle production plant.

Pursuant to 326 IAC 6-2-4, the PM emissions from boilers 010 and 011 shall not exceed 0.39 pounds per MMBtu. Emission calculations based on AP-42 emission that each boiler unit is able to comply with this limit without using a control device.

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

\*\*Emission factor for NOx (Uncontrolled) = 100 lb/MMSCF

All emission factors are based on normal firing.

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

**Methodology**

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Potential to Emit (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF) x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**  
**Small Industrial Boiler (Insignificant Boilers)**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

Heat Input Capacity  
(MMBtu/hr)  
3.00

Potential Throughput  
(MMCF/yr)  
25.8

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor (lb/MMCF)	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential to Emit (tons/yr)	0.02	0.10	0.01	1.29	0.07	1.08

Two (2) 1.50 MMBtu per hour boilers. These boilers were installed in 2000.

Pursuant to 326 IAC 6-2-4, the PM emissions from the two (2) insignificant 1.5 MMBtu/hr shall not exceed 0.38 pounds per MMBtu. Emission calculations based on factors indicate that each boiler unit is able to comply with this limit without using a control device.

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

\*\*Emission factor for NOx (Uncontrolled) = 100 lb/MMSCF

All emission factors are based on normal firing.

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

**Methodology**

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Potential to Emit (tons/yr) = Potential Throughput (MMCF/yr) x Emission Factor (lb/MMCF) x 1 ton/2,000 lbs

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations (CATEGORY #3)**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal:** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

CATEGORY #3												
Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (tons/yr)	PTE of PM/PM10 (ton/yr)	Transfer Efficiency (%)
<b>E-Coat System</b>												
E-coat bath (pigment/resin)	8.70	79.5%	78.8%	0.70%	16.80%	2.20	18.2	0.06	2.44	10.7	0.00	100%

<b>Total</b>	<b>2.44</b>	<b>10.7</b>	<b>0.00</b>
--------------	-------------	-------------	-------------

	PM Overspray Control Eff. (%)	VOC Overall Control Eff. (%)	Controlled PTE of VOC (ton/yr)	Controlled PTE of PM/PM10 (ton/yr)
E-coat bath (pigment/resin)	--	95.0%	0.53	--

Pounds of VOC per Gallon Applied Coating Solids				
VOC (lbs/gallon)	Volume Solids (%)	Transfer Efficiency (%)	Overall Control Efficiency (%)	lb VOC/gal applied coating solids (lb/gacs)
<b>6.92</b>	<b>16.8%</b>	<b>100%</b>	<b>90%</b>	<b>41.17</b>

CATEGORY #3 includes: the electrodeposition dip prime process (E-Coat/ELPO)

**METHODOLOGY**  
Pounds of VOC per Gallon Coating (lb/gal) = (Density (lb/gal) \* Weight % Organics)  
PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)  
PTE of VOC (ton/yr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)  
PTE of PM/PM10 (ton/yr) = Maximum (units/hour) \* Gal of Material (gal/unit) \* Density (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency %) \*(8,760 hrs/yr) \*(1 ton/2,000 lbs)

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations (CATEGORY #4)**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal:** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

CATEGORY #4												
Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (ton/yr)	PTE of PM/PM10 (ton/yr)	Transfer Efficiency (%)
<b>Primer Surfacer System</b>												
Primer Surfacer	10.7	35.0%	0.0%	35.0%	53.0%	0.72	18.2	3.75	49.1	215	160	60%
<b>Antichip</b>												
Primer Surfacer	6.9	54.0%	0.0%	54.0%	47.0%	0.05	18.2	3.73	3.39	14.9	7.59	40%

<b>Total</b>	<b>52.5</b>	<b>230</b>	<b>167</b>
--------------	-------------	------------	------------

	Reg. Thermal Oxidizer Overall Efficiency	Wet Scrubber Control Efficiency	PM Overspray Control Eff. (%)	VOC Overall Control Eff. (%)	Controlled PTE of VOC (ton/yr)	Controlled PTE of PM/PM10 (ton/yr)
<b>Primer Surfacer System</b>						
Primer Surfacer	73.0%	99.5%	99.0%	73.0%	58.0	1.60
<b>Antichip</b>						
Primer Surfacer	73.0%	95.0%	95.0%	73.0%	4.01	0.38
<b>TOTAL</b>					<b>62.0</b>	<b>1.98</b>

CATEGORY #4 includes: Primer

**METHODOLOGY**

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

PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

PTE of VOC (ton/yr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)

PTE of PM/PM10 (ton/yr) = Maximum (units/hour) \* Gal of Material (gal/unit) \* Density (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency %) \* (8,760 hrs/yr) \* (1 ton/2,000 lbs)

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations (CATEGORY #5)**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal:** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

<b>CATEGORY #5</b>													
Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (ton/yr)	PTE of PM/PM10 (ton/yr)	Transfer Efficiency (%)	Reg. Thermal Oxidizer Destruction Efficiency (%)
<b>Topcoat System</b>													
Basecoat (Manual)	8.20	58.0%	0.0%	58.0%	40.0%	0.24	18.2	4.76	20.8	91.0	16.5	75%	95%
Basecoat (Automatic)	8.20	58.0%	0.0%	58.0%	40.0%	0.71	18.2	4.76	61.5	269	48.7	75%	95%
Clearcoat (manual)	8.30	46.0%	0.0%	46.0%	50.0%	0.29	18.2	3.82	20.2	88.3	25.9	75%	95%
Clearcoat (Automatic)	8.30	46.0%	0.0%	46.0%	50.0%	0.88	18.2	3.82	61.1	268	78.6	75%	95%
Repair - Basecoat	8.40	61.9%	0.0%	61.9%	37.5%	0.03	18.2	5.20	2.84	12.4	4.59	40%	95%
Repair - Clearcoat	8.40	61.9%	0.0%	61.9%	37.5%	0.04	18.2	5.20	3.79	16.6	6.12	40%	95%

<b>Total</b>	<b>170</b>	<b>745</b>	<b>180</b>
--------------	------------	------------	------------

	PM Overspray Control Eff. (%)	VOC Overall Control Eff. (%)	Controlled PTE of VOC (ton/yr)	Controlled PTE of PM/PM10 (ton/yr)
<b>Topcoat System</b>				
Basecoat (manual)	97.5%	5.00%	86.4	0.41
Basecoat (automatic)	97.5%	95.0%	13.5	1.22
Clearcoat (manual)	97.5%	11.0%	78.6	0.65
Clearcoat (automatic)	97.5%	95.0%	13.4	1.97
Repair	97.5%	0.00%	29.0	0.11
<b>TOTAL</b>			<b>221</b>	<b>4.36</b>

**METHODOLOGY**

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

PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

PTE of VOC (ton/yr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)

PTE of PM/PM10 (ton/yr) = Maximum (units/hour) \* Gal of Material (gal/unit) \* Density (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency %) \*(8,760 hrs/yr) \*(1 ton/2,000 lbs)

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations (CATEGORY #8)**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal:** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

<b>CATEGORY #8</b>	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (ton/yr)	PTE of PM/PM10 (ton/yr)	Transfer Efficiency (%)
<b>Two Final Repair Stations as permitted in SSM 141-15219-00031</b>												
Basecoat (Sunset Orange Metallic)	8.5	57.7%	0.0%	57.7%	37.0%	0.30	0.825	4.90	1.21	5.31	0.85	75%
Clearcoat (Ureclear Clearcoat)	8.4	61.0%	0.0%	61.0%	52.0%	0.30	0.825	5.12	1.27	5.55	1.18	75%
Clearcoat Activator (Misting Blend for Ureclear)	8.4	78.0%	0.0%	78.0%	52.4%	0.30	0.825	6.55	1.62	7.10	1.19	75%
<b>Third Final Repair Station</b>												
Basecoat (Sunset Orange Metallic)	8.5	57.7%	0.0%	57.7%	37.0%	0.13209	3.00	4.90	1.94	8.51	1.36	75%
Clearcoat (Ureclear Clearcoat)	8.4	61.0%	0.0%	61.0%	52.0%	0.13209	3.00	5.12	2.03	8.89	1.90	75%
<b>Fourth Final Repair Station</b>												
Basecoat (Sunset Orange Metallic)	8.5	57.7%	0.0%	57.7%	37.0%	0.13	1.00	4.90	0.64	2.82	0.45	75%
Clearcoat (Ureclear Clearcoat)	8.4	61.0%	0.0%	61.0%	52.0%	0.13	1.00	5.12	0.67	2.94	0.63	75%

<b>Total</b>	<b>9.39</b>	<b>41.1</b>	<b>7.57</b>
--------------	-------------	-------------	-------------

**Limited to < 15 lb/day = 2.7 tons/yr**

	PM Overspray Control Eff. (%)	VOC Overall Control Eff. (%)	Controlled PTE of VOC (ton/yr)	Controlled PTE of PM/PM10 (ton/yr)
<b>Final and Spot Repair</b>				
Basecoat	<b>95.0%</b>	-	-	<b>0.13</b>
Clearcoat	<b>95.0%</b>	-	-	<b>0.19</b>
Clearcoat Activator	<b>95.0%</b>	-	-	<b>0.06</b>
<b>TOTAL</b>				<b>0.38</b>

**METHODOLOGY**

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

PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

PTE of VOC (ton/yr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)

PTE of PM/PM10 (ton/yr) = Maximum (units/hour) \* Gal of Material (gal/unit) \* Density (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency %) \*(8,760 hrs/yr) \*(1 ton/2,000 lbs)

**Appendix A: Emission Calculations  
VOC Emissions (CATEGORIES #7 and #9)**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal:** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

VOC Potential to Emit From Fluid Filling (Category #7)

	PTE of VOC (ton/yr)
Gasoline filling	2.15
Diesel filling	2.15
Antifreeze filling	0.0001
Automatic Transmission Fluid filling	0.0040
Windshield Washer Concentrate filling	0.0140
Power Steering Fluid filling	0.0004
Brake fluid filling	0.0001
Engine Oil filling	0.0023
<b>Total</b>	<b>4.32</b>

VOC Potential to Emit From Vehicle Start-Up & Roll (Category #9)

Tanks ID	PTE of VOC (lbs/yr)	PTE of NOx (lbs/yr)	PTE of CO (lbs/yr)	PTE of PM/PM10 (lbs/yr)
<b>Gasoline</b>				
Vehicle Start-Up	85.2	75.8	1,402	16.1
Alignment	51.2	45.5	841	9.70
Roll Test Engine	227	602	1,296	19.3
Vehicle Conveyor	34.1	30.3	561	6.44
Repairs	94.7	251	540	8.05
Totals (lb/year)	493	1,005	4,639	59.6
<b>Diesel</b>				
Vehicle Start-Up	28.4	85.2	142	246
Alignment	17.1	51.2	85.2	148
Roll Test Engine	330	989	1,307	296
Vehicle Conveyor	11.4	34.1	56.8	98.5
Repairs	137	412	545	123
Totals (lb/year)	524	1,571	2,136	911
<b>Worst Case</b>				
Vehicle Start-Up	85.2	85.2	1,402	246
Alignment	51.2	51.2	841	148
Roll Test Engine	330	989	1,307	296
Vehicle Conveyor	34.1	34.1	561	98.5
Repairs	137	412	545	123
Totals (lb/year)	637	1,571	4,655	911
<b>Totals (ton/year)</b>	<b>0.32</b>	<b>0.79</b>	<b>2.33</b>	<b>0.46</b>

For additional details see calculation methodology included in Significant Source Mod. 141-11673-00031.

**Appendix A: Emissions Calculations  
From Surface Coating Operations (CATEGORY #10)**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

Material	VOC per Gallon (lbs/gal)	Usage (gal/mth) *	Usage (gal/yr)	PTE of VOC (lbs/yr)	PTE of VOC (ton/yr)
<b>"Body Wipe Purge &amp; Clean Up Materials (Non-Production) (CATEGORY #10)</b>					
P3 Saf-T-Clean 113E Fir. Stripper	2.1	150	1,800	3,780	1.89
P3 Cold Stripper 127 Booth Stripper	6.0	300	3,600	21,600	10.8
P3 Clear Masking 2485 A Booth Mask	0.2	120	1,440	288	0.14
P3 Saf-T-Clean 104	7.3	300	3,600	26,280	13.1
<b>"Body Wipe Purge &amp; Clean Up Materials (Production) (CATEGORY #10)</b>					
Pre-Moisten Wipes	0.038	6,900	82,800	3,146	1.57
Purge for BC bell & recip	7.01	3,541	42,489	85% material reclaim	
Purge for BC Robots	7.01	726	8,716		
Purge for Prime bells	7.01	2,043	24,513		
Purge for Prime Robots	7.01	1,090	13,074		
Purge for CC equipment	7.01	427	5,121		
<b>TOTAL</b>			<b>93,913</b>	98,750	49.4
<b>Uncontrolled Emissions</b>					<b>76.9</b>

\* Material usage provided by the Permittee, see SSM 141-11673-00031 issued 06/28/2000.

**METHODOLOGY**

PTE of VOC (lbs/yr) = Usage (gal/mth) \* Pounds of VOC per Gallon Material (lb/gal) \* (1 - Material Reclaim %)

PTE of VOC (ton/yr) = Usage (gal/mth) \* Pounds of VOC per Gallon Material (lb/gal) \* (1 ton/2,000 lbs)

**Appendix A: Emissions Calculations**  
**VOC and Particulate**  
**From Surface Coating Operations (CATEGORY #11)**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal:** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

CATEGORY #11													
Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (ton/yr)	PTE of PM/PM10 (ton/yr)	Substrate	Transfer Efficiency (%)
<b>Sealers and Adhesives</b>													
Body Shop Sealers	15.0	0.40%	0.0%	0.40%	100%	0.750	18.2	0.06	0.82	3.59	0.00	metal	100%
Paint Shop Sealers	15.0	1.60%	0.0%	1.60%	95.0%	1.600	18.2	0.24	6.99	30.61	0.00	metal	100%
Trim Sealers	9.0	36.0%	0.0%	36.0%	64.0%	0.020	18.2	3.24	1.18	5.17	0.00	metal	100%
Window Installation Urethane Adhesive	9.8	0.80%	0.0%	0.80%	100%	0.600	18.2	0.08	0.86	3.77	0.00	metal	100%
Window Installation Glass Primer	8.3	58.4%	0.0%	58.4%	41.6%	0.002	18.2	4.82	0.18	0.77	0.00	metal	100%
Window Installation Glass Primer	6.9	100%	0.0%	100%	0.00%	0.002	18.2	6.94	0.25	1.11	0.00	metal	100%

<b>Total</b>	<b>10.3</b>	<b>45.0</b>	<b>0.00</b>
--------------	-------------	-------------	-------------

**METHODOLOGY**

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

PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

PTE of VOC (ton/yr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)

PTE of PM/PM10 (ton/yr) = Maximum (units/hour) \* Gal of Material (gal/unit) \* Density (lbs/gal) \* (1 - Weight % Volatiles) \* (1 - Transfer efficiency %) \* (8,760 hrs/yr) \* (1 ton/2,000 lbs)

**Appendix A: Emission Calculations**  
**VOC Emissions from Tank Filling**  
**TANKS 4.0 - Detail**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal:** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

TANKS 4.0 - Detail (Category #12)

Tanks ID	PTE of VOC (lbs/yr)	PTE of VOC (ton/yr)
AM Gen Tank #1	5,566	2.78
AM Gen Tank #2	2.70	0.00
AM Genl Tank #3	4.60	0.00
AM Gen Tank #4	7.80	0.00
AM Gen Tank #5	5,371	2.69
AM Gen Tank #6	176	0.09
AM Gen Tank #7	1.73	0.00
AM Gen Tank Farm #2	348	0.17
AM General UST	0.03	0.00
<b>TOTAL</b>	<b>11,477</b>	<b>5.74</b>

For additional details see calculation methodology included in Significant Source Mod. 141-11673-00031.

**Appendix A: Emission Calculations**  
**Surface Coating HAP Emission Calculations**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % MIK	Weight % Ethyl Benzene	Weight % Cumene	Weight % Ethylene Glycol	Weight % Formaldehyde	Weight % Phthalic Anhydride	Weight % MDI	PTE of Xylene (ton/yr)	PTE of Toluene (ton/yr)	PTE of MIK (ton/yr)	PTE of Ethyl Benzene (ton/yr)	PTE of Cumene (ton/yr)	PTE of Ethylene Glycol (ton/yr)	PTE of Formaldehyde (ton/yr)	PTE of Phthalic Anhydride (ton/yr)	PTE of MDI (ton/yr)	PTE of Total HAPs (ton/yr)	Control Efficiency (%)	Controlled PTE of Total HAPs (ton/yr)
<b>Category #3</b> <b>E-Coat System</b>	No HAPs is emitted from this system.																					95.0%		
<b>Category #4</b> <b>Primer Surfacer System</b>																								
Primer Surfacer	10.7	0.72	18.2	20.0%	0%	0%	2.54%	0%	0%	0%	0%	0%	123	0	0	15.6	0	0	0	0	0	138	73.0%	37.4
Antichip Paint	11.06	0.05	18.2	0%	0%	5.00%	0%	0%	5.00%	0%	0%	0%	0	0	2.20	0	0	2.20	0	0	0	4.41		4.41
<b>Category #5</b> <b>Topcoat System</b>																								
Topcoat paint	10.4	2.25	18.2	5.00%	0%	1.90%	0.20%	0%	0%	0%	0%	0%	93.6	0	35.6	3.75	0	0	0	0	0	133	70.0%	39.9
<b>Category #7</b> <b>Vehicle Fluid Filling</b>	No HAPs is emitted from this system.																							
<b>Category #8</b> <b>Final &amp; Spot Repair</b>																								
Final & spot paint	11.18	0.30	1.82	27.7%	9.68%	0%	6.16%	0%	0%	0%	0%	0%	7.41	2.59	0	1.65	0	0	0	0	0	11.6		11.6
<b>Category #9</b> <b>Assembly Final Line</b>	No HAPs is emitted from this system.																							
<b>Category #10</b> <b>Miscellaneous Solvents</b>																								
Purge Solvent	7.01	1.10	18.2	50.0%	0%	35.00%	10.00%	5.00%	0%	0%	0%	0%	307	0	215	61.5	30.73	0	0	0	0	615	69.0%	191
<b>Category #11</b> <b>Miscellaneous Sealers &amp; Adhesives</b>																								
Body Shop Sealers	13.5	0.75	16.5	0%	0%	0%	0%	0%	0%	0%	0.40%	0%	0	0	0	0	0	0	0	2.93	0	2.93		2.93
Paint Shop Sealers	13.5	1.60	18.2	0%	5.20%	0%	0%	0%	0%	0%	5.20%	0%	0	89.54	0	0	0	0	0	89.5	0	179		179
Trim & General Assembly	13.5	0.04	16.5	22.0%	22.0%	0%	0%	0%	0%	0%	0%	0%	7.73	7.73	0	0	0	0	0	0	0	15.5		15.5
<b>Windshield Install. Operation</b>																								
Betaseal 43520A Glass Primer	10.09	0.00	16.5	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0	0		0.00
Betaseal 15948 Urethane Adhesives	10.09	0.60	16.5	0%	0%	0%	0%	0%	0%	0%	1.00%	0%	0	0	0	0	0	0	0	0	4.38	4.38		4.38
Betaseal 43518 Glass Primer	10.09	0.00	16.5	0%	55.0%	0%	0%	0%	0%	0%	0%	0%	0	0.80	0	0	0	0	0	0	0	0.80		0.80
<b>Category #12</b> <b>Bulk Storage Tanks</b>	No HAPs is emitted from this system.																							
<b>Total</b>													539	101	253	82.5	30.7	2.20	0	92.5	4	1,105	486	

Note: Only the E-Coat System, Primer Surfacer, Topcoat system and the Miscellaneous Purge Solvent System are controlled by a Regenerative Thermal Oxidizer.

**METHODOLOGY**

PTE of HAPS (tons/yr) = Density (lb/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8,760 hrs/yr \* 1 ton/2,000 lbs  
 Controlled PTE of HAPS (tons/yr) = PTE of HAPS (tons/yr) \* (1 - Control Efficiency)

**Appendix A: Emission Calculations**  
**HAP Emission Calculations (CATEGORY #8)**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Ethylbenzene	Weight % Methanol	PTE of Xylene (ton/yr)	PTE of Ethylbenzene (ton/yr)	PTE of Methanol (ton/yr)
<b>Final Repair Station 4</b>									
Sunset Orange Metallic	8.50	0.13	1.00	5.00%	5.00%	0%	0.25	0.25	0.00
Medium Sage Green	8.51	0.13	1.00	5.00%	5.00%	0%	0.25	0.25	0.00
Olympic White	10.5	0.13	1.00	5.00%	5.00%	0%	0.30	0.30	0.00
Redfire Metallic	8.42	0.13	1.00	0%	0%	0%	0.00	0.00	0.00
Black Basecoat	8.20	0.13	1.00	10.0%	5.00%	0%	<b>0.47</b>	0.24	0.00
Yellow Basecoat	10.5	0.13	1.00	5.00%	5.00%	0%	0.30	<b>0.30</b>	0.00
Pewter Mettalic	8.60	0.13	1.00	5.00%	5.00%	5.00%	0.25	0.25	<b>0.25</b>

Worst Single HAP	<b>0.47</b>	<b>0.30</b>	<b>0.25</b>
Combined HAPs	<b>1.03</b>		

**METHODOLOGY**

PTE of HAPS (tons/yr) = Density (lb/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8,760 hrs/yr \* 1 ton/2,000 lbs

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

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (tons/yr)	PTE of PM/PM10 (ton/yr)	Transfer Efficiency (%)
<b>Dip Coating Booth</b>												
As Applied Zinc Rich Primer	27.2	9.95%	0.0%	10.0%	63.31%	0.73390	4.330	2.70	8.58	37.6	0.00	100%

<b>Total</b>	<b>8.58</b>	<b>37.6</b>	<b>0.00</b>
--------------	-------------	-------------	-------------

**METHODOLOGY**

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

PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

PTE of VOC (ton/yr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)

PTE of PM/PM10 (ton/yr) = Maximum (units/hour) \* Gal of Material (gal/unit) \* Density (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency %) \*(8,760 hrs/yr) \*(1 ton/2,000 lbs)

**Appendix A: Emissions Calculations  
Hazardous Air Pollutant (HAPs)  
From Surface Coating Operations**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

As Supplied Coatings	Density (lbs/gal)	Weight % Xylene	Weight % Ethyl Benzene	Weight % Methyl Isobutyl Ketone	Xylene (lbs/gallon)	Ethyl Benzene (lbs/gallon)	Methyl Isobutyl Ketone (lbs/gallon)
Corothane I Galva-Pac Moisture Cure Urethane 1K, G (Sherwin-Williams E90GC101) - "zinc-rich primer"	28.71	5.00%	0.90%	0%	1.44	0.26	-
Retarder (Sherwin-Williams V66VC216)	8.76	0%	0%	0%	-	-	-
Polane Accelerator (Sherwin-Williams V66VB11)	7.09	51.0%	9.0%	35.0%	3.62	0.64	2.48
SC100 thinning solvent	7.26	5.00%	0%	0%	0.36	-	-

As Supplied Coatings	Gallons/Mix	lbs/HAPs per Gal	Lbs HAPs per "mix"	Xylene (lbs/mix)	Ethyl Benzene (lbs/ mix)	Methyl Isobutyl Ketone (lbs/ mix)
Corothane I Galva-Pac Moisture Cure Urethane 1K, G (Sherwin-Williams E90GC101) - "zinc-rich primer"	3.00	1.69389	5.08	4.31	0.78	-
Retarder (Sherwin-Williams V66VC216)	0.0026	0	-	-	-	-
Polane Accelerator (Sherwin-Williams V66VB11)	0.05	6.7355	0.36	0.19	0.03	0.13
SC100 thinning solvent	0.13	0.363	0.05	0.05	-	-
<i>Total As Supplied</i>	3.18		5.48			
<i>Totals:</i>				4.54	0.81	0.13

As Applied Zinc Rich Primer HAPs	Lbs HAPS/ Mix	Gallons/Mix	Lbs HAPS per Gallon "As Applied"	Gal of Material (gal/unit)	Maximum (unit/hr)	PTE of HAPs (tons/year)
Xylene	4.54	3.18	1.43	0.73	4.33	19.9
Ethyl Benzene	0.81	3.18	0.25	0.73	4.33	3.54
Methyl Isobutyl Ketone	0.13	3.18	0.04	0.73	4.33	0.57
<b>TOTAL</b>		9.54	1.72		4.33	24.0

**METHODOLOGY**

Xylene (lbs/gallon) = Weight % Xylene \* Density (Lb/Gal)

Xylene (lbs/mix) = Xylene (lbs/gallon) \* Gallons/Mix

PTE of HAPS (tons/yr) = HAPS per Gallon "As Applied" (lb/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8,760 hrs/yr \* 1 ton/2,000 lbs

**Appendix A: Emissions Calculations  
Particulate and VOC  
Service Parts Booth**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

<b>Service Parts Booth VOC Emissions</b>										
Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Non-Volatiles (solids)	Maximum Usage (gal/hr)	Pounds VOC per gallon of coating less water*	Pounds VOC per gallon of coating*	Potential to Emit VOC (lb/hr)	Potential VOC pounds per day	Maximum Usage Less Water (gal/day)	PTE of VOC (ton/yr)
Carc 1K Black (spray application)	10.1	33.8%	66.2%	0.45	3.41	3.41	1.54	36.9	10.8	6.73
Retarder (dip application)	8.77	39.7%	60.3%	0.30	3.48	3.48	1.04	25.1	7.20	4.57
Zinc Accelerator (dip application)	7.03	95.5%	4.50%	0.10	6.71	6.71	0.67	16.1	2.4	2.94
Corothane I Galva-Pac Moisture Cure Urethane (dip application)	28.9	8.60%	91.4%	1.05	2.48	2.48	2.61	62.5	25.2	11.4
<b>Total</b>							<b>5.86</b>	<b>104</b>	<b>34.8</b>	<b>25.7</b>

<b>Service Parts Booth PM/PM10 Overspray Emissions</b>								
Material	Density (Lb/gal)	Weight % Non-Volatiles (solids)	Maximum Gallons of Material Per Hour	Transfer Efficiency (%)	Particulate Overspray (lbs/hr)	Efficiency of Control (%)	PTE of PM/PM10 (ton/yr)	Controlled PTE of PM/PM10 (ton/yr)
Carc 1K Black (spray application)	10.1	66.2%	0.45	40.0%	0.92	95.0%	4.04	0.20
<b>Total</b>							<b>4.04</b>	<b>0.20</b>

**Methodology:**

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

PTE of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

PTE of VOC (ton/yr) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8,760 hr/yr) \* (1 ton/2,000 lbs)

PTE of PM/PM10 (ton/yr) = Maximum (units/hour) \* Gal of Material (gal/unit) \* Density (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency %) \*(8,760 hrs/yr) \*(1 ton/2,000 lbs)

**Appendix A: Emissions Calculations  
Hazardous Air Pollutant (HAPs)  
From Surface Coating Operations**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

**Service Parts Booth HAPs Emissions**

As Supplied Coating, Adhesive or Solvent*	Density (lbs/gal)	Maximum Usage (gal/hr)	Weight (%) Ethyl Benzene	Weight (%) Toluene	Weight (%) Xylene	Weight (%) MIBK	Weight (%) 4, 4' - Diphenylmethane Diisocyanate	PTE of Ethyl Benzene (ton/yr)	PTE of Toluene (ton/yr)	PTE of Xylene (ton/yr)	PTE of MIBK (ton/yr)	PTE of 4, 4' - Diphenylmethane Diisocyanate (ton/yr)
Carc 1K Black (spray application)	10.1	0.45	2.00%	4.00%	9.00%	5.00%	-	0.40	0.80	1.79	1.00	-
Retarder (dip application)	8.77	0.30	-	-	-	-	-	-	-	-	-	-
Zinc Accelerator (dip application)	7.03	0.10	9.00%	-	51.0%	36.0%	-	0.28	-	1.57	1.11	-
Corothane I Galva-Pac Moisture Cure Urethane (dip application)	28.9	1.05	0.80%	-	5.00%	-	2.00%	1.06	-	6.63	-	2.65

<b>Total</b>	<b>1.74</b>	<b>0.80</b>	<b>10.0</b>	<b>2.10</b>	<b>2.65</b>
Total HAPs	17.3				

**METHODOLOGY**

PTE of Ethyl Benzene (ton/yr) = Weight % Ethyl Benzene \* Density (Lb/Gal) \* Maximum Usage (gal/hr) \* 8,760 hrs/yr \* 2,000 lbs/ton

**Appendix A: Emissions Calculations  
Hazardous Air Pollutant (HAPs)  
From Surface Coating Operations**

**Company Name:** AM General Corporation  
**Address City IN Zip:** 13200 McKinley, Highway, Mishawaka, IN 46545  
**Title V Renewal** 141-17644-00031  
**Reviewer:** ERG/BL  
**Date:** October 3, 2007

Process Description	Controls Description and IDs	Max. Blasted (tons/hr)	PM Emission Factor Before Control (lbs/ton)	PM10 Emission Factor Before Control (lbs/ton)	Uncontrolled PTE of PM (lbs/hr)	Uncontrolled PTE of PM (ton/yr)	326 IAC 6-3-2 PM Limit (lb/hr)	326 IAC 6-3-2 PM Limit (tons/yr)	326 IAC 2-2 PM Limit (lb/hr)	326 IAC 2-2 PM Limit (tons/yr)	Controlled PTE of PM (ton/yr)
Blast Surface Preparation of Aluminum Parts	Cartridge Filters	2.50	17.0	1.70	42.5	186	7.58	33.2	5.59	24.5	1.86

Process Description	Uncontrolled PTE of PM10 (lbs/hr)	Uncontrolled PTE of PM10 (ton/yr)	326 IAC 2-2 PM10 Limit (lb/hr)	326 IAC 2-2 PM10 Limit (tons/yr)	Controlled PTE of PM10 (ton/yr)
Blast Surface Preparation of Aluminum Parts	4.25	18.6	3.31	14.5	0.04

The control efficiency of the cartridge filter is 99%.

Emission factor is from EPA FIRE Version 6.25 - Gray Iron Foundries, Grinding/Cleaning (SCC: 3-04-003-40).

**Methodology**

PM/PM10 Potential to Emit (lbs/hr) = Max. Abrasive Usage (tons/hr) \* PM/PM10 Emission Factor (lbs/ton)

PM/PM10 Potential to Emit (tons/yr) = Max. Abrasive Usage (tons/hr) \* PM/PM10 Emission Factor (lbs/ton) \* 8,760 hrs/yr \* 1 ton/2,000 lbs

PM/PM10 Potential to Emit After Control (lbs/hr) = PM/PM Potential to Emit Before Controls (lbs/ton) \* (1 - Control Efficiency)

PM/PM10 Potential to Emit After Control (tons/yr) = PM/PM Potential to Emit Before Controls (tons/yr) \* (1 - Control Efficiency)