**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**
*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*
**Governor**

*Thomas W. Easterly*
**Commissioner**

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

# Part 70 Operating Permit Renewal
# OFFICE OF AIR QUALITY

## Honda Manufacturing of Indiana, LLC
## 2755 North Michigan
## Greensburg, Indiana 47240

(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.: T031-30127-00026 | |
|---|---|
| Issued by: | Issuance Date: |
| Chrystal A. Wagner, Section Chief<br>Permits Branch<br>Office of Air Quality | Expiration Date: |

# TABLE OF CONTENTS

**A SOURCE SUMMARY ..... 8**

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 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 GENERAL CONDITIONS ..... 17**

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)] [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] [IC 13-17-12]
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 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.16 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]
B.17 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]
B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]
B.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]
B.20 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2] [326 IAC 2-3-2]
B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]
B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)] [326 IAC 2-1.1-7]
B.24 Credible Evidence [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [62 FR 8314] [326 IAC 1-1-6]

**C SOURCE OPERATION CONDITIONS ..... 27**

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

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]
C.2 Opacity [326 IAC 5-1]
C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]
C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
C.5 Fugitive Dust Emissions [326 IAC 6-4]
C.6 Stack Height [326 IAC 1-7]
C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

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

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**
C.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
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.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]
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] [326 IAC 2-2] [326 IAC 2-3]

**Stratospheric Ozone Protection**
C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

**D.1 FACILITY OPERATION CONDITIONS- Source Wide Operations .....35**
**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.1.1 Sourcewide Prevention of Significant Deterioration (PSD) Limits [326 IAC 2-2]

**Compliance Determination Requirements**
D.1.2 Prevention of Significant Deterioration (PSD) VOC BACT limits [326 IAC 2-2]
D.1.3 Regenerative Thermal Oxidizers (RTOs) [326 IAC 2 2]

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

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.1.4 Record Keeping Requirements
D.1.5 Reporting Requirements

**D.2 FACILITY OPERATION CONDITIONS- Electrodeposition (E-Coat) Coating Line.....37**
**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.2.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2]
D.2.2 Volatile Organic Compounds [326 IAC 8-2-2]
D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**
D.2.4 Regenerative Thermal Oxidizers (RTOs) [326 IAC 2-2] [326 IAC 8-2-2]
D.2.5 Volatile Organic Compounds [326 IAC 8-2-2] [326 IAC 8-1-2]
D.2.6 Testing Requirements [326 IAC 2-2] [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]
D.2.7 Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 8-2-2]

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**
D.2.8 Regenerative Thermal Oxidizers (RTOs) Temperature [326 IAC 2-2] [326 IAC 8-2-2]
D.2.9 Parametric Monitoring [326 IAC 8-2-2]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.2.10 Record Keeping Requirements [326 IAC 8-2-2]
D.2.11 Reporting Requirements

**D.3 FACILITY OPERATION CONDITIONS - Primer/Surfacer Coating Line .....42**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.3.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2]
D.3.2 Volatile Organic Compounds [326 IAC 8-2-2]
D.3.3 PSD BACT for PM and PM10 [326 IAC 2-2]
D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**
D.3.5 Regenerative Thermal Oxidizers (RTOs) [326 IAC 2-2] [326 IAC 8-2-2]
D.3.6 Volatile Organic Compounds [326 IAC 8-2-2] [326 IAC 8-1-2]
D.3.7 Testing Requirements [326 IAC 2-2] [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]
D.3.8 Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 8-2-2]

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**
D.3.9 Regenerative Thermal Oxidizers (RTOs) Temperature [326 IAC 2-2] [326 IAC 8-2-2] [40 CFR 64]
D.3.10 Water/Polymer Emulsion Wash and dry filters Monitoring [40 CFR 64]
D.3.11 Parametric Monitoring [326 IAC 8-2-2] [40 CFR 64]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.3.12 Record Keeping Requirements [326 IAC 8-2-2]
D.3.13 Reporting Requirements

**D.4 FACILITY OPERATION CONDITIONS- Topcoat Coating Operation .....49**
**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.4.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2]
D.4.2 Volatile Organic Compounds [326 IAC 8-2-2] and [326 IAC 8-2-9]
D.4.3 PSD BACT for PM and PM10 [326 IAC 2-2]
D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**
D.4.5 Regenerative Thermal Oxidizers (RTOs) [326 IAC 2-2] [326 IAC 8-2-2]
D.4.6 Volatile Organic Compounds [326 IAC 8-2-2] [326 IAC 8-1-2]
D.4.7 Testing Requirements [326 IAC 2-2] [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]
D.4.8 Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 8-2-2]

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**
D.4.9 Regenerative Thermal Oxidizers (RTOs) Temperature [326 IAC 2-2] [326 IAC 8-2-2] [40 CFR64]
D.4.10 Water/Polymer Emulsion Wash and Dry Filters Monitoring
D.4.11 Parametric Monitoring [326 IAC 8-2-2] [40 CFR Part 64]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.4.12 Record Keeping Requirements [326 IAC 8-2-2]
D.4.13 Reporting Requirements

**D.5 FACILITY OPERATION CONDITIONS- Fascia/Bumper & Instrument Panel.....57**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.5.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 8-1-6]
D.5.2 PSD BACT for PM and PM10 [326 IAC 2-2]
D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**
D.5.4 Regenerative Thermal Oxidizer (RTO) [326 IAC 2-2]
D.5.5 Testing Requirements [326 IAC 2-2] [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]
D.5.6 Volatile Organic Compounds (VOC) [326 IAC 2-2]

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**
D.5.7 Regenerative Thermal Oxidizer (RTO) Temperature [326 IAC 2-2] [40 CFR Part 64]
D.5.8 Water/Oil Emulsion Wash and Dry Filters Monitoring
D.5.9 Parametric Monitoring [326 IAC 8-2-2] [40 CFR Part 64]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.5.10 Record Keeping Requirements [326 IAC 8-2-2]
D.5.11 Reporting Requirements

**D.6 FACILITY OPERATION CONDITIONS- Final Assembly – Gasoline Dispensing .....63**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.6.1 Prevention of Significant Deterioration (PSD) – Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 8-4-6]
D.6.2 Volatile Organic Compounds (VOC) [326 IAC 8-4-6]
D.6.3 Volatile Organic Compounds (VOC) [326 IAC 8-4-9]
D.6.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**
D.6.5 Volatile Organic Compounds [326 IAC 2-2]
D.6.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**
D.6.7 Vapor Recovery System Operation

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.6.8 Record Keeping Requirements [326 IAC 2-7-5] [326 IAC 8-4-9]
D.6.9 Reporting Requirements

**D.7 FACILITY OPERATION CONDITIONS - Plant wide Miscellaneous Operations.....68**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.7.1 Prevention of Significant Deterioration (PSD) – Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2]
D.7.2 Cleaning Work Practices [326 IAC 2-2]
D.7.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]
D.7.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]
D.7.5 PSD BACT for PM and PM10 [326 IAC 2-2]
D.7.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**
D.7.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-4(a)(3)] [326 IAC 8-1-2(a)] [326 IAC 2-2]
D.7.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-2(a)(7)]

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

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.7.9 Record Keeping Requirements
D.7.10 Reporting Requirements

**D.8 FACILITY OPERATION CONDITIONS- Insignificant Activities: Storage Tanks & Windshield Washer Fluid Fill .....74**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.8.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2]
D.8.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

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

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

**D.9 FACILITY OPERATION CONDITIONS- Insignificant Activities: Repair Operations .....76**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.9.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 8-2-2]
D.9.2 PSD BACT for PM and PM10 [326 IAC 2-2]
D.9.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**
D.9.4 Volatile Organic Compounds (VOC) [326 IAC 2-2]

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**
D.9.5 Dry Filters Monitoring

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.9.6 Record Keeping Requirements [326 IAC 8-2-2]
D.9.7 Reporting Requirements

**D.10 FACILITY OPERATION CONDITIONS- Miscellaneous Combustion Units.....79**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.10.1 Prevention of Significant Deterioration (PSD) CO Minor Limit [326 IAC 2-2]
D.10.2 Prevention of Significant Deterioration (PSD) – Best Available Control Technology for Particulate Emissions (PM) and Nitrogen Oxides (NOx) [326 IAC 2-2]
D.10.3 Particulate [326 IAC 6-2-4]

**Compliance Determination Requirements**
D.10.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-2]

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

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.10.5 Record Keeping Requirements
D.10.6 Reporting Requirements

**D.11 FACILITY OPERATION CONDITIONS- Insignificant Activities .....85**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**
D.11.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Particulate [326 IAC 2-2]

**Compliance Determination Requirements**

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

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**
D.11.2 Record Keeping Requirements

**E.1 FACILITY OPERATION CONDITIONS - E-Coat, Primer/Surfacer, Topcoat.....87**

E.1.1 General Provisions Relating to NSPS MM [326 IAC 12-1] [40 CFR Part 60, Subpart A]
E.1.2 Automobiles and Light-Duty Trucks NSPS [40 CFR Part 60, Subpart MM]

**E.2 FACILITY OPERATION CONDITIONS - Miscellaneous Combustion Units.....89**
E.2.1 General Provisions Relating to NSPS IIII [326 IAC 12-1] [40 CFR Part 60, Subpart A]
E.2.2 Stationary Compression Ignition Internal Combustion Engines NSPS Requirements [40 CFR Part 60, Subpart IIII]

**E.3 FACILITY OPERATION CONDITIONS - Emergency Generators..... .....90**
E.3.1 General Provisions Relating to NSPS JJJJ [326 IAC 12-1] [40 CFR Part 60, Subpart A]
E.3.2 Standard of Performance for Stationary Spark Ignition Internal Combustion Engines [40 CFR Part 60, Subpart JJJJ]

**E.4 FACILITY OPERATION CONDITIONS - E-Coat, Sealer/Deadener, Primer Surfacer, Topcoat, Blackout/Cavity Wax, Miscellaneous Cleaning and Purge, Final Assembly, and Final Repair Plastic Operations, Instrument Panel, Miscellaneous Cleaning and Purge .....91**

E.4.1 General Provisions Relating to NESHAP IIII [326 IAC 20-1] [40 CFR Part 63, Subpart A]
E.4.2 Surface Coating of Plastic Parts and Products NESHAP [40 CFR Part 63, Subpart PPPP]
E.4.3 Surface Coating of Miscellaneous Metal Parts and Products NESHAP [40 CFR Part 63, Subpart MMMM]
E.4.4 Surface Coating of Automobiles and Light-Duty Trucks NESHAP [40 CFR Part 63, Subpart IIII]

**E.5 FACILITY OPERATION CONDITIONS Emergency Generators.....97**

E.5.1 General Provisions Relating to NESHAP ZZZZ [326 IAC 20-1] [40 CFR Part 63, Subpart A]
E.5.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ]

**Certification ..... 98**
**Emergency Occurrence Report .....99-100**
**Quarterly Reports .....101-110**
**Quarterly Deviation and Compliance Monitoring Reports.....111-112**

## 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.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

The Permittee owns and operates a stationary automobile and light-duty trucks manufacturing plant.

| | |
|---|---|
| Source Address: | 2755 North Michigan Avenue, Greensburg, Indiana |
| General Source Phone Number: | (812) 651-6159 |
| SIC Code: | 3711, 3714 |
| County Location: | Decatur |
| Source Location Status: | Attainment for all criteria pollutants |
| Source Status: | Part 70 Operating Permit Program<br>Major Source, under PSD Rules<br>Major Source, Section 112 of the Clean Air Act<br>Not 1 of 28 Source Categories |

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(15)]

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

(a) Body Painting Operations:

(1) Electrodeposition (E-Coat) Coating Line, identified as PA-02, with a capacity of 72 units per hour, consisting of the following:

(A) Multistage pretreatment/Phosphate Process, identified as PA-01 IA.

(B) One (1) Electrodeposition coating dip tank, rinse stages and E-Coat oven controlled by one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 14 million British thermal units per hour (MMBtu/hr), identified as Body Oven RTO with stack ID 1100.

(C) One (1) E-Coat oven pre-heat zone, with a maximum heat input capacity of 3.7 MMBtu/hr, exhausting to stack ID 1003.

(D) One (1) natural gas-fired E-coat 4-stage oven tunnel, which consists of four (4) oven zones, each with a heat input capacity of 3.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(E) One (1) cooling tunnel, exhausting to stack ID 1006.

(2) Sealer Deadener Coating Line, identified as PA-03, with a capacity of 73 units per hour, consisting of the following:

(A) One (1) automatic and manual sealer deadener application area, one (1) sound deadener booth, using airless spray application system, exhausting to stack ID 1007.

(3) Primer/Surfacer Coating Line, identified as PA-05, with a capacity of 80 units per hour, consisting of the following:

(A) One (1) Primer/Surfacer spray coating booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system and dry filters to control particulate overspray, exhausting to stack ID 1014 and stack ID 1015.

(B) One (1) Primer/Surfacer flashoff area, with two (2) natural gas-fired heaters, one with a maximum heat input capacity of 3.5 MMBtu/hr and one with a maximum heat input capacity of 2.6 MMBtu/hr.

(C) One (1) natural gas-fired Primer/Surfacer 4-stage oven tunnel, which consists of four (4) zones, oven zones #1, #2, and #4, each with a heat input capacity of 2.6 MMBtu/hr and oven zone #3 with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(D) One (1) oven exit hood exhaust, exhausting to stack ID 1021.

(E) One (1) cooling tunnel, exhausting to stack ID 1022.

(F) Air make-up units as follows:

(i) One (1) natural gas-fired air makeup unit, for the primer/surfacer line, equipped with a two-stage burner, with a combined maximum heat input capacity of 7.8 MMBtu/hr.

(4) Topcoat Coating Operation, identified as PA-07, with two (2) Topcoat Lines #1 and #2, with a total capacity of 88 units per hour, consisting of the following:

(A) Two (2) basecoat spray booths, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash systems and dry filters to control particulate overspray, exhausting to stack ID 1032 and stack ID 1043.

(B) Two (2) basecoat flashoff areas, each with one (1) natural gas-fired heater, each with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1033 and stack ID 1044.

(C) Two (2) clearcoat spray booths, each approved in 2006 for construction and each approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems. The automatic zones use water/polymer emulsion wash systems to control particulate overspray and the manual zones use dry filters. The manual zones are cascaded to the automatic zones, and the automatic zones are controlled by one (1) RTO, identified as Body Booth RTO with stack ID 1101.

(D) One (1) natural gas-fired Topcoat 4-stage oven tunnel, which consists of four (4) zones, oven zone #1, with a heat input capacity of 3.5 MMBtu/hr, oven zone #2, with a heat input capacity of 2.6 MMBtu/hr, and oven zones #3, and #4, each with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(E) One (1) cooling tunnel, exhausting to stack ID 1041.

(F) One (1) oven exit hood exhaust, exhausting to stack ID 1037.

(G) Topcoat on-line repair, identified as PA-07 which includes:

(i) One (1) repair sanding booth, identified as PA-08 controlled by dust filters, exhausting to stack ID 1056.

(ii) One (1) repair coating booth using water/polymer emulsion wash system to control particulate overspray, exhausting to stack ID 1057.

(iii) One (1) natural gas-fired repair oven, with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1058.

(iv) One (1) cooling tunnel, exhausting to stack ID 1060.

(v) One (1) small repair booth, exhausting to stack ID 1055, with infrared curing that consists of three (3) banks of portable infrared lights.

(H) Air makeup units as follows:

(i) Two (2) natural gas-fired air makeup units **(**Basecoat #1 ASH and Basecoat #2 ASH), for the Topcoat Lines #1 and #2 basecoat booths, each equipped with a two-stage burner, each with a combined maximum heat input capacity of 8.0 MMBtu/hr.

(ii) Two (2) natural gas-fired air makeup units (Clearcoat #1 ASH and Clearcoat #2 ASH), for Topcoat Lines #1 and #2 clearcoat booths, each equipped with a two-stage burner, each with a combined maximum heat input capacity of 5.0 MMBtu/hr.

(iii) One (1) natural gas-fired air makeup unit, for the topcoat on-line repair operations, equipped with a two-stage burner (Repair ASH 1 and Repair ASH 2), with a combined maximum heat input capacity of 12.2 MMBtu/hr.

(5) Blackout/Cavity wax coating booth, identified as PA-11, equipped with dry filters, exhausting to stack ID 1062.

(6) Miscellaneous cleaning and purge operation – paint operations, consisting of the following:

(A) Purge and clean-up solvent usage and recovery system, identified as PA-14, including virgin solvent distribution, day tanks, small portable containers including containers that meet the definition of cold cleaners, and spent solvent recovery.

(7) Paint effluent system, identified as PA-17, consisting of sludge for separation of paint solids form booth water/polymer emulsion wash systems for body and plastic parts painting. Solids are chemically separated and sent off-site. Water/polymer emulsion is recycled to paint booths or sent to wastewater treatment.

(8) One (1) natural gas-fired air makeup unit with a maximum heat input capacity of 20.0 MMBtu/hr, identified as (Working Area ASH #1, PA-21).

(9) One (1) natural gas-fired air makeup unit with a maximum heat input capacity of 8.0 MMBtu/hr, identified as (Working Area ASH #2, PA-22**)**.

(10) One (1) natural gas -fired makeup unit with a maximum heat input capacity of 5.0 MMBtu/hr, identified as (Working Area ASH #3, PA-23**)**.

(11) One (1) natural gas-fired HVAC units, identified as HVAC ASH #2, PA-25, with a maximum heat input capacity of 13.0 MMBtu/hr.

(12) One (1) natural gas-fired HVAC unit, with a maximum heat input capacity of 8.00 MMBtu/hr, identified as HVAC #3 ASH, PA-26.

(b) Plastics Operations:

(1) Plastic Parts Coating Line, identified as PO-02, with a capacity of 120 hangers per hour, consisting of the following:

(A) Alkaline pretreatment process, identified as PO-01.

(B) One (1) dry-off tunnel, exhausting to stack ID 2000.

(C) One (1) primer spray booth, utilizing High Volume Low Pressure (HVLP) and/or electrostatic application systems, using water/polymer emulsion wash to control particulate overspray, exhausting to stack ID 2002.

(D) One (1) basecoat spray booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system to control particulate overspray. If waterborne basecoat is utilized, the basecoat spray booth will exhaust to stack ID 2003 and stack ID 2004. If solventborne basecoat is utilized, the basecoat spray booth will be controlled by one (1) RTO, identified as Bumper RTO with stack ID 2029.

(E) One (1) clearcoat spray booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system to control particulate overspray, and VOC emissions controlled by one (1) RTO, with a maximum heat input capacity of 14.00 MMBtu/hr, identified as Bumper RTO, with stack ID 2029.

(F) One (1) clearcoat flashoff area.

(G) One (1) plastic parts oven tunnel which consists of two (2) zones, Topcoat Oven Zone #1 and Topcoat Oven Zone #2 each zone with a maximum heat input capacity of 2.6 MMBtu/hr burner controlled by one (1) RTO, identified as Bumper RTO with stack ID 2029.

(H) One (1) natural gas-fired air makeup unit, equipped with a two-stage burner, with a combined maximum heat input capacity of 19.0 MMBtu/hr.

(2) Miscellaneous cleaning and purge operation – plastics painting, consisting of the following:

(A) Purge and clean-up solvent usage and recovery system, identified as PO-05, including virgin solvent distribution, day tanks, small portable containers including containers that meet the definition of cold cleaners, and spent solvent recovery.

(3) Two (2) plastic parts injection molding machines, identified as PO-06 and PO-07, with a combined maximum throughput of 4,050 pounds per hour plastic pellets.

(4) Three (3) plastic pellets storage silos, storage #1 is identified as PO-11, storage #2 is identified as PO-12 and storage #3 is identified as PO-18.

(5) One (1) Plastic parts touchup booth, identified as PO-17, using dry filters for particulate control and manual application systems.

(6) Two (2) painted/raw plastic parts regrind machines, identified as PO-15 and PO-16.

(7) Two (2) plastic flash torches, with a maximum heat input capacity of 0.10 MMBtu/hr each, identified as PO-14 and PO-19.

(c) Final Assembly Operations:

(1) Assembly window install and miscellaneous operations, identified as AF-01, with a capacity of 70 units per hour, consisting of all coatings, sealers, lubricants and related cleaning solvents used for auto assembly, including processes used to install window glass in vehicles, including body primer, glass cleaner, glass primer, and glass adhesive. Includes robotic and manual application equipment, coating delivery/circulation systems and raw material storage containers.

(2) Gasoline dispensing operation, with a capacity of 70 units per hour, consisting of the following:

(A) Gasoline dispensing equipment, identified as AF-02, located at the assembly line, for filling new vehicles, through the use of on-board vapor recovery (ORVR) on a minimum of 95% of the vehicles manufactured.

(B) One (1) gasoline storage tank, identified as FAC-99, located at the tank farm, with a capacity of 19,800 gallons, equipped with submerged fill and Stage 1 vapor balance.

(C) One (1) premium gasoline storage tank, identified as FAC-101, approved in 2011 for construction, located at the tank farm, with a capacity of 19,800 gallons, equipped with submerged fill and Stage 1 vapor balance.

(d) Weld sealer process using manual and robotic weld sealer application equipment, material delivery systems and raw material storage, identified as WE-01.

(e) Two (2) diesel fired emergency generators, identified as FAC-84 and FAC-85, each with a rated capacity of 757 HP.

(f) One (1) diesel fired back-up generator, identified as FAC-86, with a rated capacity equal to or less than 100 kilowatts (kW).

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) Painting Operations:

(1) E-Coat sanding and inspection booth, identified as PA-04, using dry filters for particulate control, exhausting to general ventilation.

(2) Primer/Surfacer sanding and inspection booth, identified as PA-06, using dry filters for particulate control, exhausting to general ventilation.

(3) Topcoat in-line repair, which includes repair area for small interior topcoat, imperfections, manual application equipment, identified as PA-09.

(4) Topcoat manual sanding and inspection area, identified as PA-10.

(5) One (1) plastic coating line masking booth.

(6) One (1) plastic coating line air blow booth.

(7) Final Repair, identified as PA-12, which includes repair coating booths and general areas, using manual application systems, and IR curing equipment.

(8) Final Repair - Air Dry, identified as PA-13, using air dry materials and manual application system.

(9) Paint Mix Rooms (Emissions accounted for in the emission determinations at each respective source).

(10) One (1) Plastic parts touchup booth, identified as PO-17, using dry filters for particulate control and manual application systems.

(b) 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.

(1) One (1) natural gas-fired hot water heater (FAC-110) for the purpose of supplying hot water to the café kitchen, with a maximum heat input capacity of 0.50 MMBtu/hr.

(2) Four (4) natural gas-fired hot water generators, located in the body painting area (PA-20), with a combined maximum heat input capacity of 24.5 MMBtu/hr.

(3) One (1) natural gas-fired air makeup unit for the Primer/Surfacer sanding and inspection booth (PA-06), with a maximum heat input capacity of 6.4 MMBtu/hr.

(4) Twenty-eight (28) natural gas-fired space heaters (FAC-53 through FAC-72 with a combined maximum heat input capacity of 2.6 MMBtu/hr and (FAC-73 through FAC-80 with a combined maximum heat input capacity of 0.8 MMBtu/hr.

(5) Natural gas-fired HVAC units (FAC-01 through FAC-07, FAC-11 through FAC-20, FAC-26 through FAC-30, FAC-32, FAC-35 through FAC-37, FAC-39 through FAC-41, FAC-43 through FAC-52, FAC-146 and FAC-147), with a combined maximum heat input capacity of 87.36 MMBtu/hr.

(6) Forty three (43) natural gas-fired space heaters (FAC-117 through FAC-130, FAC-133 through FAC-139, FAC-148 through FAC-150 and FAC-151 through FAC-169), with a combined maximum heat input capacity of 6.83 MMBtu/hr.

(7) Four (4) natural gas-fired HVAC units (FAC-116, FAC-131, FAC-132 and FAC-140), with a combined maximum heat input capacity of 2.13 MMBtu/hr.

(c) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.

(A) Two (2) diesel fuel storage tanks for fire pumps, identified as FAC-93 and FAC-94, each with a capacity of 300 gallons, each equipped with submerged fill.

(B) Three (3) diesel fuel storage tanks for generators, identified as FAC-95, FAC-177 and FAC-178, each with a capacity of 150 gallons.

(C) Two (2) LPG storage tanks, identified as FAC-113 and FAC-114 each with a capacity of 1,000 galllons.

(2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

(d) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(e) Cleaners and solvents having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100$^{o}$F).

(f) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment:

(1) One (1) Stamping Shop - Four (4) press stamping lines, stamped parts repair and die maintenance activities, including hand held grinders, sanders, files, portable MIG welding, arc, welding, and stick welding, identified as ST-01.

(2) Body welding and finishing, identified as WE-02, using resistance welding and grinding, and MIG welding stations. The SR station "Stationary Robots" and back-up MIG welding and grinding operations are controlled by cartridge filters.

(3) Portable MIG, arc and TIG welding, identified as WE-06.

(g) Infrared cure equipment.

(h) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(1) Industrial WWT operations, identified as FAC-112, for pretreatment for metals removal using a chemical precipitation process.

(i) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.

(j) Noncontact cooling tower systems with forced and/or induced draft cooling tower system not regulated under a NESHAP.

(1) One (1) forced draft chiller cooling tower, identified as FAC-105, with a capacity of 20,000 gallons per minute.

(2) One (1) forced draft air compressor cooling tower, identified as FAC-107, with a capacity of 940 gallons per minute.

(k) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(l) Heat exchanger cleaning and repair.

(m) Process vessel degreasing and cleaning to prepare for internal repairs.

(n) Paved and unpaved roads and parking lots with public access, identified as FAC-108.

(o) Purging of gas lines and vessels that is related to routing 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.

(p) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(q) On-site fire and emergency response training approved by the department.

(r) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower.

(1) One (1) substation emergency generator, identified as FAC-81, with a capacity of 133 horsepower (HP).

(2) One (1) Consolidation Center emergency generator, identified as FAC-89, with a capacity of 133 HP.

(3) One (1) Credit Union building emergency generator, identified as FAC-115, with a capacity of 133 HP.

(s) Other emergency equipment as follows: Stationary fire pumps.

(1) Two (2) stationary fire pumps, identified as FAC-82 and FAC-83, each with a rated capacity of 183 horsepower.

(t) Emergency generators as follows: Gasoline generators not exceeding 110 horsepower.

(1) Two (2) emergency generators, identified as FAC-145 and FAC-175, with a capacity of 5.5 HP each.

(u) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(v) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(1) One (1) tumbleblast unit, identified as PA-15.

(w) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(x) Enclosed systems for conveying plastic raw materials and plastic finished goods as defined in 326 IAC 2-7-1(21)(G).

(y) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 26 lb/day PM; 5 lb/hr or 25 lb/day SO2; 5 lb/hr or 25 lb/day NOx; 3 lb/hr or 15 lb/day VOC; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:

(1) Windshield washer fluid fill operation, with a capacity of 70 units per hour, consisting of the following:

(A) Water/methanol fluid mixing and dispensing equipment, identified as AF-03, located at the assembly line, for filling new vehicles.

(B) One (1) windshield washer fluid storage tank, identified as FAC-102, located at the tank farm, with a capacity of 2,000 gallons, equipped with submerged fill.

(2) The following tanks, located at the Tank Farm:

(A) One (1) automatic transmission fluid storage tank, identified as FAC-96, with a capacity of 10,000 gallons, equipped with submerged fill.

(B) One (1) antifreeze storage tank, identified as FAC-103, with a capacity of 10,000 gallons, equipped with submerged fill.

(C) One (1) brake fluid storage tank, identified as FAC-98, with a capacity of 2,000 gallons, equipped with submerged fill.

(D) One (1) power steering fluid storage tank, identified as FAC-204, with a capacity of 2,000 gallons, equipped with submerged fill.

(E) One (1) manual transmission fluid storage tank, identified as FAC-104, with a capacity of 2,000 gallons, equipped with submerged fill.

(F) One (1) diesel fuel storage tank for yard truck operations, identified as MS-01, with a capacity of 3,000 gallons, equipped with submerged fill.

(3) The following tank, located at the Utility Building:

(A) One (1) diesel fuel storage tank, identified as FAC-90, with a capacity of 2,000 gallons, equipped with submerged fill.

(4) One (1) compressed natural gas tank, identified as AF-04, for filling CNG vehicles.

(5) Eight (8) cold cleaner degreasers, identified as ST-02, MS-02, WE-07, AF-05, VQ-01, PA-27, PO-20 and FAC-176, located at designated areas.

(6) One (1) BPA Polish booth, identified as PO-04, consisting of manual air tools for scuffing, polishing, and buffing painted plastic parts.

## 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, T031-30127-00026, 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] [IC 13-17-12]

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. 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) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(34), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent 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 July 1 of each year to:

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

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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(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.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, 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.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

The Permittee shall implement the PMPs.

(c) 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. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(d) 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, 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 and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865

(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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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.

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 PSD No. 183-27145-00030 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 permit, all previous registrations and permits are superseded by this 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 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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.16 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

(b) A timely renewal application is one that is:

(1) Submitted at least 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, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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.18 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 or notice 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.19 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
Permit Administration and Support Section, 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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.20 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.21 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.22 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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.23 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.24 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 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

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

C.2 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

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

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.5 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). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 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. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

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

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "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 Licensed 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 Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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.9 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, 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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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.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 maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) 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]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to 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 excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning 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 normal or usual manner of operation.

(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 record the reasonable response steps 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 submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(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]

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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

(c) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.165(a)(6)(vi)(B), 40 CFR 51.166(r)(6)(vi)(a), and/or 40 CFR 51.166(r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) 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)) may result in significant emissions increase 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(ll)) 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.

(d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) 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)) may result in significant emissions increase 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) 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

(2) 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] [326 IAC 2-2]

(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 except that 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. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

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

(c) 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) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

(e) If the Permittee is required to comply with the recordkeeping provisions of (d) 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 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

(f) The report for project at an existing emissions unit shall be submitted no later than sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

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

(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 applicable standards for recycling and emissions reduction.

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

**Source-Wide Operations**

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

D.1.1 Sourcewide Prevention of Significant Deterioration (PSD) Limits [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3 (BACT), the proposed automobile and light-duty truck assembly plant shall be limited as follows:

(a) The plant's production rate shall be limited to 250,000 vehicles per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) The total VOC usage from all surface coating operations; E-Coat Line (PA-02), Sealer/Deadener (PA-03), Primer/Surfacer (PA-05), Topcoat Coating Line and On-Line Repair (PA-07), Blackout/Cavity Wax Coating Line (PA-11), and Plastic Parts Coating Line (PO-02), shall be limited such that the total VOC emissions shall not exceed 330.2 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with paragraph (a) of this condition is also necessary to render PSD not applicable for CO and SO2 emissions.

### Compliance Determination Requirement

D.1.2 Prevention of Significant Deterioration (PSD) VOC BACT limits [326 IAC 2-2]

Compliance with the VOC limit in Condition D.1.1 shall be determined by using the following equation, which calculates the tons of VOC emissions per month, and adding the result to the calculated VOC emissions from the previous eleven months:

Body Painting VOC Emissions (tons/month) = E-Coat Line (PA-02) + Sealer/Deadener (PA-03) + Primer/Surfacer (PA-05) + Topcoat Coating Line and On-Line Repair (PA-07) + Blackout/Cavity Wax Coating Line (PA-11) + Plastic Parts Coating Line (PO-02), VOC

D.1.3 Regenerative Thermal Oxidizers (RTOs) [326 IAC 2-2]

(a) In order to demonstrate compliance status with Condition D.1.1 and the requirements of 326 IAC 2-2-3 (BACT), the regenerative thermal oxidizers (RTOs) shall operate at all times when the processes being controlled are in operation.

(b) The bypass line for each capture system shall not be used to divert emissions away from the RTOs to the atmosphere, but shall only be used for VOC purge to prevent fire prior to the coating operation, and during cleaning operations, other non-standard equipment testing and non-production times when air supply houses remain in operation. If emissions occur from testing, cleaning and other activities, those emissions must be tracked separately.

(c) All paint lines exhausting any emissions to an RTO shall be equipped with "system interlocks" as safety features, which automatically shut down all related conveyors and spray equipment if air flow is diverted by a bypass line away from the RTO and if the RTO's operating temperature drops below the three (3) hour average determined during the latest compliance stack tests. The interlocks shall automatically prohibit entry of additional vehicles to the spray booths.

(d) No new vehicle shall enter the paint line as the system is in process to empty the vehicles during shutdown.

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

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

D.1.4 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken as stated below and shall be complete and sufficient to establish compliance with the automobile and light duty truck production limit, and the VOC emission limit established in Condition D.1.1(b). Records necessary to demonstrate the compliance status shall be available not later than 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 used on a monthly basis.

(A) Records shall include, but not limited to 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.

(3) The total VOC usage and emissions from coatings and solvents for each month.

(4) The number of vehicles produced each month.

(b) To document the compliance status with Condition D.1.3, any shut down event shall be recorded for investigation to countermeasure against future occurrences, and be kept on file for at least the past five (5) year period and made available upon request to IDEM, OAQ.

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

D.1.5 Reporting Requirements

(a) Reports of monthly vehicle production totals to document the compliance status with Condition D.1.1(a), shall be submitted to IDEM, OAQ using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1 (34).

(b) Reports of monthly VOC emissions from body surface coating operations to document the compliance status with Condition D.1.1(b), shall be submitted to IDEM, OAQ using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1 (34).

## SECTION D.2 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]:**

(a) Body Painting Operations:

(1) Electrodeposition (E-Coat) Coating Line, identified as PA-02, with a capacity of 72 units per hour, consisting of the following:

(A) Multistage pretreatment/Phosphate Process, identified as PA-01 IA.

(B) One (1) Electrodeposition coating dip tank, rinse stages and E-Coat oven controlled by one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 14 million British thermal units per hour (MMBtu/hr), identified as Body Oven RTO with stack ID 1100.

(C) One (1) E-Coat pre-heat zone, with a maximum heat input capacity of 3.7 MMBtu/hr, exhausting to stack ID 1003.

(D) One (1) natural gas-fired E-coat 5-stage oven tunnel, which consists of five (5) oven zones, each with a heat input capacity of 3.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(E) One (1) cooling tunnel, exhausting to stack ID 1006.

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

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

D.2.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3, the Best Available Control Technology (PSD BACT) for the E-Coat Coating Line, ID PA-02, shall be as follows:

(a) The exhausts from the E-Coat tank, rinse stage, and drying oven shall be vented to regenerative thermal oxidizer Body Oven RTO (with stack ID 1100), and shall have a capture system efficiency of 100%. The regenerative thermal oxidizers shall achieve a minimum VOC destruction efficiency of 95%.

(b) The VOC emissions, after control, from the E-Coat Coating Line ID PA-02, shall not exceed 0.04 pound per gallon of applied coating solids (lb/gacs), based on a daily volume weighted average.

(c) The PSD BACT requirements for the combustion facilities in SECTION D.2, are contained in SECTION D.10.

D.2.2 Volatile Organic Compounds [326 IAC 8-2-2]

Pursuant to 326 IAC 8-2-2, the combined VOC delivered to the applicators from prime application, involving the Electrodeposition (E-Coat) Coating Line ID PA-02, and Primer/Surfacer Coating Line ID PA-05 in SECTION D.3, including the flash-off area, and drying oven shall not exceed 0.23 kilogram per liter of coating (1.9 pounds per gallon), excluding water.

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

**Compliance Determination Requirements**

D.2.4 Regenerative Thermal Oxidizers (RTOs) [326 IAC 2-2] [326 IAC 8-2-2]

The exhausts from the E-coat tank, rinse stages and drying oven shall be vented to regenerative thermal oxidizer Body Oven RTO (with stack ID 1100) at all times when the E-Coat Coating Line (PA-02) is in operation.

D.2.5 Volatile Organic Compounds [326 IAC 8-2-2] [326 IAC 8-1-2]

Pursuant to 326 IAC 8-1-2(a), the combined VOC emission limitations under 326 IAC 8-2-2 in Condition D.2.2, for the Electrodeposition (E-Coat) Coating Line (PA-02), and the Primer/Surfacer Coating Line (PA-05) in SECTION D.3, shall be achieved through one (1) or any combination of the following: thermal incineration, use of higher solids (low solvent) coatings, and/or waterborne coatings.

D.2.6 Testing Requirements [326 IAC 2-2] [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

Within one (1) year of issuance of SSM 031-30713-00026 or within sixty (60) days after achieving maximum capacity but no later than one hundred and eighty (180) days after startup of the modification receiving approval in 2011 (additional robots) at the Primer/Surfacer Coating Line (PA-05) in SECTION D.3 and the Topcoat Coating Operation (PA-07) in SECTION D.4, whichever occurs first, the Permittee shall conduct performance tests of the E-Coat Coating Line (PA-02) (E-Coat tank, rinse stages, and drying oven), Primer/Surfacer Coating Line (PA-05) (drying oven) in SECTION D.3, the Topcoat Coating Operation (PA-07) (drying oven) in SECTION D.4, and the Sealer Deadener (PA-03) (drying oven) in SECTION D.3, to determine compliance with the limits on VOC emissions, capture efficiency, and destruction efficiency of the regenerative thermal oxidizer (Body Oven RTO with stack ID 1100), utilizing methods as approved by the Commissioner. This testing shall be repeated at least once every two and half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to performance testing required by this condition.

D.2.7 Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 8-2-2]

(a) Compliance with the VOC content and usage limitations contained in Conditions D.2.1 and D.2.2 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.2.1(b) shall be determined using daily volume weighted average of the coating solids consumed and actual transfer efficiencies and shall be determined using the following equation:

$$DWA = \frac{\sum_{i=1}^{n} (Ci)(Ui) \times (1-(CE \times DRE))}{\sum_{i=1}^{n} (Si \times TE)}$$

where:
DWA = daily calculated volume weighted average emissions in pounds per gallon coating solids.
C = VOC content of coating i, lb VOC/gal
U = actual coating i usage, gal/day

S = volume of solids in coating i consumed, gal/day
TE = transfer efficiency of the applicator (100% for the E-Coat)
n = no. of coatings used during the day
CE = capture efficiency of the emission system vented to the RTO
DRE =destruction/removal efficiency of the RTO

(c) Compliance with the VOC limitation in Condition D.2.2 shall be determined using a daily volume weighted average of the coatings applied less water using the following equation:

$$A = \frac{\sum_{i=1}^{n} (Ci)(Ui) \times (1-(CE \times DRE))}{\sum_{i=1}^{n} (Ui \times (1-Di))}$$

where:
A = daily volume weighted average, lb VOC/gal less water
C = VOC content of coating i, lb VOC/gal
U = actual coating i usage, gal/day
D = coating i volume % water
n = no. of coatings used during the day
CE = capture efficiency of the emission system vented to the RTO
DRE =destruction/removal efficiency of the RTO

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

D.2.8 Regenerative Thermal Oxidizers (RTOs) Temperature [326 IAC 2-2] [326 IAC 8-2-2]

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the Electrodeposition (E-Coat) Coating Line ID PA-02 regenerative thermal oxidizer (Body Oven RTO with stack ID 1100) for measuring operating temperature. For the purposes of this condition, continuous shall mean no less than once per fifteen (15) minutes. 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 three (3) hour rolling average operating temperature of the thermal oxidizer shall be maintained at a minimum temperature of 1400$^{o}$F. Whenever the three (3) hour average temperature is below 1400$^{o}$F or the three (3) hour average temperature established during the latest stack test, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) The Permittee shall determine the three (3) hour average temperature from the most recent valid stack test that demonstrates compliance with the limits in conditions D.2.1 and D.2.2, 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) hour rolling average temperature as observed during the compliant stack test

The instruments used for determining the temperature shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

D.2.9 Parametric Monitoring [326 IAC 8-2-2]

(a) The Permittee shall determine the appropriate duct pressure or fan amperage or fan Hertz from the most recent valid stack test that demonstrates compliance with limits in condition D.2.1 and D.2.2, as approved by IDEM.

(b) The equipment to measure fan Hertz shall be equipped with "system interlocks", which shall automatically shutdown the affected paint operations if fan Hertz is outside the normal range established in the most recent compliant stack test. The interlocks shall automatically prohibit entry of additional vehicles to the spray booths.

(c) No new vehicle shall enter the paint line as the system is in the process to empty the vehicles during shutdown.

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

D.2.10 Record Keeping Requirements [326 IAC 8-2-2]

(a) To document the compliance status with Condition D.2.1(b), the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC emission limit established in Condition D.2.1(b). Records necessary to demonstrate compliance shall be available not later than 30 days of the end of each compliance period.

(1) The amount and VOC content of each coating material and solvent used daily for coatings applied by the E-Coat tank.

(A) Records shall include, but not limited to 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.

(2) A log of the dates of use.

(3) The solids content of each coating material used (as applied).

(4) The calculated daily volume weighted average emission in pounds per gallon coating solids as applied from the E-Coat tank.

(b) To document the compliance status with Condition D.2.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC emission limit established in Condition D.2.2. Records necessary to demonstrate compliance shall be available not later than 30 days of the end of each compliance period.

(1) The amount and VOC content of each coating material and solvent used daily for coatings applied by the E-Coat tank and the Primer/Surfacer Coating Line ID PA-05 in SECTION D.3.

(A) Records shall include, but not limited to 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.

(2) A log of the dates of use.

(3) The water content of each coating material used (as applied).

(4) The calculated daily volume weighted average VOC content per gallon of the coatings less water as applied from the E-Coat tank and the Primer/Surfacer Coating Line (PA-05) in SECTION D.3.

(c) To document the compliance status with Condition D.2.8, the Permittee shall maintain records of the continuous temperature records (on a three-hour average basis) for the E-Coat Coating Line ID PA-02 regenerative thermal oxidizer (Body Oven RTO with stack ID 1100) and the three-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(d) To document the compliance status with Condition D.2.9, the Permittee shall maintain records of the Body Oven RTO shutdowns due to fan Hertz deviations.

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

D.2.11 Reporting Requirements

A monthly summary of the information to document the compliance status with Condition D.2.1 shall be submitted to IDEM, OAQ using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1 (34).

## SECTION D.3 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]:**

(a) Body Painting Operations:

(2) Sealer/Deadener Coating Line, identified as PA-03, with a capacity of 73 units per hour, consisting of the following:

(A) One (1) automatic and manual sealer deadener application area, and one (1) sound deadener booth, using airless spray application system, exhausting to stack ID 1007.

(3) Primer/Surfacer Coating Line, identified as PA-05, with a capacity of 80 units per hour, consisting of the following:

(A) One (1) Primer/Surfacer spray coating booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system and dry filters to control particulate overspray, exhausting to stack ID 1014 and stack ID 1015.

(B) One (1) Primer/Surfacer flashoff area, with two (2) natural gas-fired heaters, one with a maximum heat input capacity of 3.5 MMBtu/hr and one with a maximum heat input capacity of 2.6 MMBtu/hr.

(C) One (1) natural gas-fired Primer/Surfacer 4-stage oven tunnel, which consists of four (4) zones, oven zones #1, #2, and #4, each with a heat input capacity of 2.6 MMBtu/hr and oven zone #3 with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(D) One (1) oven exit hood exhaust, exhausting to stack ID 1021.

(E) One (1) cooling tunnel, exhausting to stack ID 1022.

(F) Air make-up units as follows:

(i) One (1) natural gas-fired air makeup unit, for the primer/surfacer line, equipped with a two-stage burner, with a combined maximum heat input capacity of 7.8 MMBtu/hr.

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

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

D.3.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3, the VOC Best Available Control Technology (PSD BACT) for the Primer/Surfacer Coating Line, identified as PA-05, shall be as follows:

(a) The exhaust from the Primer/Surfacer Coating line drying oven shall be vented to regenerative thermal oxidizer Body Oven RTO (with stack ID 1100). The thermal oxidizer shall achieve a minimum VOC destruction efficiency of 95%.

(b) The VOC emissions, from the Primer/Surfacer Coating Line (including controlled and uncontrolled emissions), identified as PA-05, shall not exceed 3.46 pound per gallon of applied coating solids (lb/gacs), based on a daily volume weighted average.

(c) The VOC emissions, from the Sealer Deadener Coating Line (including controlled and uncontrolled emissions), identified as PA-03, shall not exceed 0.30 pounds of VOC per gallon of coating (lb/gal) used, based on a monthly volume weighted average.

(d) The PSD BACT requirements for the combustion facilities in SECTION D.3, are contained in SECTION D.10.

D.3.2 Volatile Organic Compounds [326 IAC 8-2-2]

Pursuant to 326 IAC 8-2-2, the combined VOC delivered to the applicators from prime application, involving the Primer/Surfacer Coating Line (PA-05), and Electrodeposition (E-Coat) Coating Line (PA-02) in SECTION D.2, including the flash-off area, and drying oven shall not exceed 0.23 kilogram per liter of coating (1.9 pounds per gallon), excluding water.

D.3.3 PSD BACT for PM and PM10 [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3, Best Available Control Technology (PSD BACT), the PM and PM10 emissions from the water/oil emulsion wash system and dry filters controlling the particulate emissions from the Primer/Surfacer Coating Line (PA-05) shall be limited to 0.0015 grains per standard cubic foot (gr/scf) of exhaust air, and 99% control efficiency. The Department may revise this permit to adjust the PM and PM10 limitation of 0.0015 gr/scf based upon the results of the stack test required in Condition D.3.7. PM-10 includes filterable and condensible PM-10. Any revisions of the emissions limits made as the result of this provision shall be subject to the best available control technology (BACT) review and air quality analysis, specified in 326 IAC 2-2. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision. IC 13-15-7-3 (revocation or Modification of a Permit: appeal to Board) shall apply to this permit condition.

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

**Compliance Determination Requirements**

D.3.5 Regenerative Thermal Oxidizers (RTOs) [326 IAC 2-2] [326 IAC 8-2-2]

The exhaust from the Primer/Surfacer Coating Line drying oven (PA-05) shall be vented to regenerative thermal oxidizer (Body Oven RTO with stack ID 1100) at all times when the line is in operation.

D.3.6 Volatile Organic Compounds [326 IAC 8-2-2] [326 IAC 8-1-2]

Pursuant to 326 IAC 8-1-2(a), the combined VOC emission limitations under 326 IAC 8-2-2 in Condition D.3.2, for the Primer/Surfacer Coating Line (PA-05) and Electrodeposition (E-Coat) Coating Line (PA-02) in SECTION D.2, shall be achieved through one (1) or any combination of the following: thermal incineration, use of higher solids (low solvent) coatings, and/or waterborne coatings.

D.3.7 Testing Requirements [326 IAC 2-2] [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

(a) Within one (1) year of issuance of SSM 031-30713-00026 or within sixty (60) days after achieving maximum capacity but no later than one hundred and eighty (180) days after startup of the modification receiving approval in 2011 (additional robots) at the Primer/Surfacer Coating Line (PA-05) in Section D.3 and the Topcoat Coating Operation (PA-07) in SECTION D.4, whichever occurs first, the Permittee shall conduct performance tests of the Primer/Surfacer Coating Line (PA-05) (oven) in SECTION D.3, the E-Coat Coating Line (PA-02) (E-Coat tank, rinse stages, and oven) in SECTION D.2, and the Topcoat Coating Operation (PA-07) (two drying ovens) in SECTION D.4, to determine compliance with the limits on VOC emissions, capture efficiency, and destruction efficiency of the regenerative thermal oxidizer (Body Oven RTO with stack ID 1100), and applicators transfer efficiencies, utilizing methods as approved by the Commissioner. This testing shall be repeated at least once every two and half (2.5) years from the date of the most

recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to performance testing required by this condition.

(b) Within sixty (60) days after achieving maximum capacity but no later than one hundred and eighty (180) days after startup of the modification receiving approval in 2011 (additional robots) at the Primer/Surfacer Coating Line PA-05, in order to demonstrate compliance with Condition D.3.3, the Permittee shall conduct performance tests to measure the PM/PM10 emission rates in grains per standard cubic feet of exhaust air of the water/polymer emulsion wash and dry filters controlling the Primer/Surfacer coating booth, utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensible PM-10. This testing shall be repeated at least once every two and half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to performance testing required by this condition.

D.3.8 Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 8-2-2]

(a) Compliance with the VOC content and usage limitations contained in Conditions D.3.1 and D.3.2 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.3.1(b) shall be determined using daily volume weighted average of the coating solids consumed and actual transfer efficiencies and shall be determined using the following equation:

$$DWA = \frac{\sum_{i=1}^{n} (C_i)(U_i) \times (1-(CE \times DRE))}{\sum_{i=1}^{n} (S_i \times TE)}$$

where:
DWA = daily calculated volume weighted average emissions in pounds per gallon coating solids.
C = VOC content of coating $_i$, lb VOC/gal
U = actual coating $_i$ usage, gal/day
S = volume of solids in coating $_i$ consumed, gal/day
TE = transfer efficiency of the applicator
n = no. of coatings used during the day
CE = capture efficiency of the emission system vented to the RTO
DRE =destruction or removal efficiency of the RTO

(c) Compliance with the VOC limitation in Condition D.3.1(c) shall be determined using monthly volume weighted average of the coating used using the following equation:

$$DWA = \frac{\sum_{i=1}^{n} (C_i)(U_i) \times (1-(CE \times DRE))}{\sum_{i=1}^{n} U_i}$$

where:
DWA = monthly calculated volume weighted average emissions in pounds per gallon coating applied.
C = VOC content of coating $_i$, lb VOC/gal
U = actual coating $_i$ usage, gal/month
n = no. of coatings used during the month
CE = capture efficiency of the emission system vented to the RTO
DRE =destruction or removal efficiency of the RTO

(d) Compliance with the VOC limitation in Condition D.3.2 shall be determined using a daily volume weighted average of the coatings applied less water using the following equation:

$$A = \frac{\sum_{i=1}^{n} (C_i)(U_i) \times (1-(CE \times DRE))}{\sum_{i=1}^{n} (U_i \times (1-D_i))}$$

where:
A = daily volume weighted average, lb VOC/gal less water
C = VOC content of coating $_i$, lb VOC/gal
U = actual coating $_i$ usage, gal/day
D = coating $_i$ volume % water
n = no. of coatings used during the day
CE = capture efficiency of the emission system vented to the RTO
DRE =destruction or removal efficiency of the RTO

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

D.3.9 Regenerative Thermal Oxidizers (RTOs) Temperature [326 IAC 2-2] [326 IAC 8-2-2] [40 CFR 64]

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the Primer/Surfacer Coating Line, ID PA-05 and Sealer/Deadener Coating Line, ID PA-03 thermal oxidizer (Body Oven RTO with stack ID 1100) for measuring operating temperature. For purposes of this condition, continuous shall mean no less than once per fifteen (15) minutes. 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 three (3) hour rolling average operating temperature of the thermal oxidizer shall be maintained at a minimum temperature of 1400$^o$F. Whenever the three (3) hour average temperature is below 1400$^o$F or the three (3) hour average temperature established during the latest stack test, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) The Permittee shall determine the three (3) hour average temperature from the most recent valid stack test that demonstrates compliance with limits in conditions D.3.1 and D.3.2, 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) hour rolling average temperature as observed during the compliant stack test.

The instruments used for determining the temperature shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

D.3.10 Water/Polymer Emulsion Wash and dry filters Monitoring [40 CFR 64]

(a) Daily inspection shall be performed prior to the paint booth's operation to verify the proper placement and configuration of the dry filters. Daily visual inspections shall be performed on the water/polymer emulsion wash system associated with the Primer/Surfacer Coating Line (PA-05) during the paint booth's operation to verify the control system proper operation. A warning system shall be installed and operated that will automatically activates whenever the water/polymer emulsion circulation pump is down. Whenever a warning signal is received, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground, except during inclement weather. When a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.3.11 Parametric Monitoring [326 IAC 8-2-2] [40 CFR 64]

(a) The Permittee shall determine the appropriate duct pressure or fan amperage or fan Hertz from the most recent valid stack test that demonstrates compliance with limits in condition D.3.1 and D.3.2, as approved by IDEM.

(b) The equipment to measure fan Hertz shall be equipped with "system interlocks", which shall automatically shutdown the affected paint operations if fan Hertz is outside the normal range established in the most recent compliant stack test. The interlocks shall automatically prohibit entry of additional vehicles to the spray booths.

(c) No new vehicle shall enter the paint line as the system is in the process to empty the vehicles during shutdown.

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

D.3.12 Record Keeping Requirements [326 IAC 8-2-2]

(a) To document the compliance status with Condition D.3.1(b), the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish the compliance status with the VOC emission limit established in Conditions D.3.1(b). Records necessary to demonstrate compliance shall be available not later than 30 days of the end of each compliance period.

(1) The amount and VOC content of each coating material and solvent used daily for coatings applied by the Primer/Surfacer Coating Line (PA-05).

(A) Records shall include, but not limited to 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.

(2) A log of the dates of use.

(3) The solids content of each coating material used (as applied).

(4) The calculated daily volume weighted average emission in pounds per gallon coating solids as applied from the Primer/Surfacer Coating Line (PA-05).

(b) To document the compliance status with Condition D.3.1(c), the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC emission limit established in Conditions D.3.1(c). Records necessary to demonstrate compliance shall be available not later than 30 days of the end of each compliance period.

(1) The amount and VOC content of each coating material and solvent used monthly.

(A) Records shall include, but not limited to 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.

(2) The calculated monthly volume weighted average emission in pounds per gallon coating as applied from the Sealer/Deadener Coating line (PA-03).

(c) To document the compliance status with Condition D.3.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC emission limit established in Condition D.3.2. Records necessary to demonstrate compliance shall be available not later than 30 days of the end of each compliance period.

(1) The amount and VOC content of each coating material and solvent used daily for coatings applied by the Primer/Surfacer Coating Line (PA-05) and the E-Coat tank in SECTION D.2.

(A) Records shall include, but not limited to 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.

(2) A log of the dates of use.

(3) The water content of each coating material used (as applied).

(4) The calculated daily volume weighted average VOC content per gallon of the coatings less water as applied from the Primer/Surfacer Coating Line (PA-05) and the E-Coat Line (PA-02) in SECTION D.2.

(d) To document the compliance status with Condition D.3.10, the Permittee shall maintain a log of monthly overspray observation, records of daily visual inspection of the dry filters, dates of any water/polymer emulsion wash system warning system alarm and corrective actions taken and monthly inspections on the rooftops.

(e) To document the compliance status with Condition D.3.9, the Permittee shall maintain records of the continuous temperature records (on a three-hour average basis) for the Primer/Surfacer Coating Line ID PA-05 regenerative thermal oxidizer (Body Oven RTO with stack ID 1100) and the

three-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(f) To document the compliance status with Condition D.3.3, the Permittee shall maintain on file vendors guarantees and/or certifications for the dry filters efficiency.

(g) To document the compliance status with Condition D.3.11, the Permittee shall maintain records of the Body Oven RTO shutdowns due to fan Hertz deviations

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

D.3.13 Reporting Requirements

A monthly summary of the information to document the compliance status with Condition D.3.1 shall be submitted to IDEM, OAQ using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (34).

**SECTION D.4 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(15)]:**

(a) Body Painting Operations:

(4) Topcoat Coating Operation, identified as PA-07, with two (2) Topcoat Lines #1 and #2, with a total capacity of 88 units per hour, consisting of the following:

(A) Two (2) basecoat spray booths, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash systems and dry filters to control particulate overspray, exhausting to stack ID 1032 and stack ID 1043.

(B) Two (2) basecoat flashoff areas, each with one (1) natural gas-fired heater, each with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1033 and stack ID 1044.

(C) Two (2) clearcoat spray booths, each approved in 2006 for construction and each approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems. The automatic zones use water/polymer emulsion wash systems to control particulate overspray and the manual zones use dry filters. The manual zones are cascaded to the automatic zones, and the automatic zones are controlled by one (1) RTO, identified as Body Booth RTO with stack ID 1101.

(D) One (1) natural gas-fired Topcoat 5-stage oven tunnel, which consists of five (5) zones, oven zone #1 with a heat input capacity of 3.5 MMBtu/hr, oven zone #2 with a heat input capacity of 2.6 MMBtu/hr and oven zones #3, #4, and #5, each with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(E) One (1) cooling tunnel, exhausting to stack ID 1041.

(F) One (1) oven exit hood exhaust, exhausting to stack ID 1037.

(G) Topcoat on-line repair, identified as PA-07, which includes:

(i) One (1) repair sanding booth, identified as PA-08, controlled by dust filters, exhausting to stack ID 1056.
(ii) One (1) repair coating booth using water wash system to control particulate overspray, exhausting to stack ID 1057.
(iii) One (1) natural gas-fired repair oven, with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1058.
(iv) One (1) cooling tunnel, exhausting to stack ID 1060.
(v) One (1) small repair booth, exhausting to stack ID 1055, with infrared curing, consists of three (3) banks and portable infrared lights.

(5) Blackout/Cavity wax coating booth, identified as PA-11, equipped with dry filters, exhausting to stack ID 1062.

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

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

D.4.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3, the Best Available Control Technology (PSD BACT) for the Topcoat Coating Operation, Topcoat on-line repair, both identified as PA-07, and Topcoat in-line repair, identified as PA-09 shall be as follows:

(a) The capture systems for the clearcoat booths of the Topcoat Lines #1 and #2 shall be vented into one (1) RTO, identified as Body Booth RTO with stack ID 1101. The RTO shall achieve a minimum destruction efficiency of ninety-five percent (95%).

(b) The Topcoat drying oven shall be vented into one (1) RTO, identified as Body Oven RTO with stack ID 1100. The RTO shall achieve a minimum destruction efficiency of ninety-five percent (95%).

(c) The VOC emissions, from the Topcoat Coating Operation Line #1 and Line #2 (including controlled and uncontrolled emissions), combined with the uncontrolled Topcoat on-line repair, both identified as PA-07 shall not exceed 5.2 pounds per gallon of applied coating solids (lb/gacs), based on a daily volume weighted average.

(d) The daily volume weighted average of the VOC content of the Blackout (PA-11) coating used, shall not exceed 0.74 pound per gallon of coating (lbs/gal) as applied.

(e) The daily volume weighted average of the VOC content of the Cavity Wax used, shall not exceed 2.9 pound per gallon of coating (lbs/gal).

The Permittee shall implement good work practices for the Cavity Wax Coating (PA-11) application.

(f) The PSD BACT requirements for the combustion facilities in SECTION D.4, are contained in SECTION D.10.

D.4.2 Volatile Organic Compounds [326 IAC 8-2-2] and [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations), the VOC delivered to the applicators from the Topcoat Coating Operation and Topcoat on-line repair, both identified as PA-07, including flash-off areas, and drying oven shall not exceed 0.34 kilogram per liter of coating (2.8 pounds per gallon), excluding water.

(b) Pursuant to 326 IAC 8-2-9, the owner or operator shall not allow the discharge into the atmosphere VOC for the application of cavity wax in excess of three and five-tenths (3.5), pounds per gallon, excluding water.

D.4.3 PSD BACT for PM and PM10 [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-2-3, Best Available Control Technology (PSD BACT), the PM and PM10 emissions from the water/polymer emulsion wash and dry filters controlling the particulate emissions from the Topcoat Lines #1 and #2, two (2) basecoat spray booths, and two (2) clearcoat spray booths shall be limited to 0.0015 grains per standard cubic foot (gr/scf) of exhaust air and 99% control efficiency. The Department may revise this permit to adjust the PM and PM10 limitation of 0.0015 gr/scf based upon the results of the stack test required in Condition D.4.7. PM-10 includes filterable and condensible PM-10. Any revisions of the emissions limits made as the result of this provision shall be subject to the best available control technology (BACT) review and air quality analysis, specified in 326 IAC 2-2. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision. IC 13-15-7-3 (revocation or Modification of a Permit: appeal to Board) shall apply to this permit condition.

(b) Pursuant to 326 IAC 2-2-3, Best Available Control Technology (BACT), the PM and PM10 emissions from the dry filters controlling the Topcoat on-line repair sanding booth, identified as PA-08, shall be limited to 0.0015 gr/scf of exhaust air and 98.5% control efficiency. PM-10 includes filterable and condensible PM-10.

(c) Pursuant to 326 IAC 2-2-3, Best Available Control Technology (BACT the PM and PM10 emissions from the dry filters controlling the Blackout/Cavity wax booth, identified as PA-11, shall be limited to 0.0015 gr/scf of exhaust air and 98% collection /control efficiency. PM-10 includes filterable and condensible PM-10.

D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

**Compliance Determination Requirements**

D.4.5 Regenerative Thermal Oxidizers (RTOs) [326 IAC 2-2] [326 IAC 8-2-2]

The exhausts from the clearcoat booths of the Topcoat Lines #1 and #2 shall be vented to regenerative thermal oxidizer (Body Booth RTO with stack ID 1101) at all times when one or both lines are in operation.

The exhausts from the Topcoat Drying Oven shall be vented to regenerative thermal oxidizer (Body Oven RTO with stack ID1100) at all times when the oven is in operation.

D.4.6 Volatile Organic Compounds [326 IAC 8-2-2] [326 IAC 8-1-2]

Pursuant to 326 IAC 8-1-2(a), the VOC emission limitations under 326 IAC 8-2-2 in Condition D.4.2, for the Topcoat Coating Operation ID PA-07, shall be achieved through one (1) or any combination of the following: thermal incineration, use of higher solids (low solvent) coatings, and/or waterborne coatings.

D.4.7 Testing Requirements [326 IAC 2-2] [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

(a) Within one (1) year of issuance of SSM 031-30713-00026 or within sixty (60) days after achieving maximum capacity but no later than one hundred and eighty (180) days after startup of the modification receiving approval in 2011 (additional robots) at the Topcoat Coating Operation (PA-07) and the Primer/Surfacer Coating Line (PA-05) in Section D.3, whichever occurs first, the Permittee shall conduct performance tests of the Topcoat Coating Operation (PA-07) (one drying oven), the E-Coat Coating Line (PA-02) (E-Coat tank, rinse stages, and drying oven) in SECTION D.2 , Primer/Surfacer Coating Line (PA-05) (drying oven), to determine compliance with the limits on VOC emissions, capture efficiency, and destruction efficiency of the regenerative thermal oxidizer (Body Oven RTO with stack ID 1100), and applicators transfer efficiencies, utilizing methods as approved by the Commissioner. This testing shall be repeated at least once every two and half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - performance Testing contains the Permittee's obligation with regard to performance testing required by this condition.

(b) Within one (1) year of issuance of SSM 031-30713-00026 or within sixty (60) days after achieving maximum capacity but no later than one hundred and eighty (180) days after startup of the modification receiving approval in 2011 (additional robots) at the Topcoat Coating Operation, identified as PA-07,whichever occurs first, the Permittee shall conduct performance tests of the new Topcoat Coating Operation ID PA-07 (two clearcoat booths), to determine compliance with the limits on VOC emissions and destruction efficiency of the regenerative thermal oxidizer (Body Booth RTO with stack ID 1101), and applicators transfer efficiencies, utilizing methods as approved by the Commissioner. This testing shall be repeated at least once every two and half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be

conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - performance Testing contains the Permittee's obligation with regard to performance testing required by this condition.

(c) Within sixty (60) days after achieving maximum capacity but no later than one hundred and eighty (180) days after startup of the modification receiving approval in 2011 (additional robots) at the Topcoat Coating Line (PA-07), in order to demonstrate compliance with Condition D.4.3, the Permittee shall conduct performance tests to measure the PM/PM10 emission rates in grains per standard cubic feet of exhaust air of the water/oil emulsion wash and dry filters controlling the basecoat booths and clearcoat booths of the Topcoat Coating Line (PA-07), utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to performance testing required by this condition.

D.4.8 Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 8-2-2]

(a) Compliance with the VOC content and usage limitations contained in Conditions D.4.1 and D.4.2 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.4.1(c) shall be determined using daily volume weighted average of the coating solids consumed and actual transfer efficiencies and shall be determined using the following equation:

$$DWA = \frac{\sum_{i=1}^{n} (C_i)(U_i) \times (1-(CE \times DRE))}{\sum_{i=1}^{n} (S_i \times TE)}$$

where:
DWA = daily calculated volume weighted average emissions in pounds per gallon coating solids.
C = VOC content of coating $_i$, lb VOC/gal
U = actual coating $_i$ usage, gal/day
S = volume of solids in coating $_i$ consumed, gal/day
TE = transfer efficiency of the applicator
n = no. of coatings used during the day
CE = capture efficiency of the emission system vented to the RTO
DRE =destruction or removal efficiency of the RTO

(c) Compliance with the PSD BACT limits in D.4.1(d) and D.4.1(e) from the Blackout and Cavity Wax application shall be determined using the following equation:

$$DWA = \frac{\sum_{i=1}^{n} (C_i)(U_i)}{\sum_{i=1}^{n} U_i}$$

where:

DWA = daily calculated volume weighted average emissions in pounds per gallon coating applied.
C = VOC content of coating $_i$, lb VOC/gal
U = actual coating $_i$ usage, gal/day
n = no. of coatings used during the day

(d) Compliance with the VOC limitation in Condition D.4.2(a) shall be determined using a daily volume weighted average of the coatings applied less water using the following equation:

$$A = \frac{\sum_{i=1}^{n} (C_i)(U_i) \times (1-(CE \times DRE))}{\sum_{i=1}^{n} (U_i \times (1-D_i))}$$

where:
A = daily volume weighted average, lb VOC/gal less water
C = VOC content of coating $_i$, lb VOC/gal
U = actual coating $_i$ usage, gal/day
D = coating$_i$ volume % water
n = no. of coatings used during the day
CE = capture efficiency of the emission system vented to the RTO
DRE =destruction or removal efficiency of the RTO

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

D.4.9 Regenerative Thermal Oxidizers (RTOs) Temperature [326 IAC 2-2] [326 IAC 8-2-2] [40 CFR 64]

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the Topcoat Coating Operation ID PA-07 regenerative thermal oxidizers (Body Oven RTO with stack ID 1100 and Body Booth RTO with stack ID 1101) for measuring operating temperature. For the purposes of the condition, continuous shall mean no less than once per fifteen (15) minutes. 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 three (3) hour rolling average operating temperature of the thermal oxidizer shall be maintained at a minimum temperature of 1400$^o$F. Whenever the three (3) hour average temperature is below 1400$^o$F or the three (3) hour average temperature established during the latest stack test, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) The Permittee shall determine the three (3) hour average temperature from the most recent valid stack test that demonstrates compliance with limits in conditions D.4.1 and D.4.2, 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) hour rolling average temperature as observed during the compliant stack test.

The instruments used for determining the temperature shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

D.4.10 Water/Polymer Emulsion Wash and Dry Filters Monitoring

(a) For Topcoat Coating Operation, identified as PA-07 –
Daily inspection shall be performed prior to the paint booth's operation to verify the proper placement and configuration of the dry filters. Daily visual inspections shall be performed on the water/polymer emulsion wash system associated with Topcoat Coating Operation, identified as PA-07, during the paint booth's operation to verify the control system proper operation. A warning system shall be installed and operated that will automatically activates whenever the water/polymer emulsion circulation pump is down. Whenever a warning signal is received, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

For Blackout/Cavity wax booth, identified as PA-11-
Daily inspections shall be performed during the paint booth's operation to verify the proper placement of the dry filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the Blackout/Cavity wax booth, PA-11, stack (ID 1062), while it is operating.

If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground except during inclement weather. When a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.4.11 Parametric Monitoring [326 IAC 8-2-2] [40 CFR Part 64]

(a) The Permittee shall determine the appropriate duct pressure or fan amperage or fan Hertz from the most recent valid stack test that demonstrates compliance with limits in condition D.4.1 and D.4.2, as approved by IDEM.

(b) The equipment to measure fan Hertz shall be equipped with "system interlocks", which shall automatically shutdown the affected paint operations if fan Hertz is outside the normal range established in most recent compliant stack test. The interlocks shall automatically prohibit entry of additional vehicles to the spray booths.

(c) No new vehicle shall enter the paint line as the system is in the process to empty the vehicles during shutdown.

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

D.4.12 Record Keeping Requirements [326 IAC 8-2-2]

(a) To document the compliance status with Condition D.4.1(c) and (d), the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish the compliance status with the VOC emission limits established in Conditions D.4.1(c) and (d). Records necessary to demonstrate the compliance status shall be available not later than 30 days of the end of each compliance period.

(1) The amount and VOC content of each coating material and solvent used daily for coatings applied by the Topcoat Coating Operation and Topcoat on-line repair, both identified as PA-07 and Blackout, identified as PA-11.

(A) Records shall include, but not limited to 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.

(2) A log of the dates of use.

(3) The solids content of each coating material used (as applied) for the Topcoat Coating Operation and Topcoat on-line repair, both identified as PA-07.

(4) The calculated daily volume weighted average emission in pounds per gallon coating solids as applied from the Topcoat Coating Operation and the Topcoat on-line repair, both identified as PA-07 and the calculated daily volume weighted average emission in pounds per gallon of coating as applied from the Blackout operation, identified as PA-11.

(b) To document the compliance status with Condition D.4.1(e), the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken as stated below and shall be complete and sufficient to establish the compliance status with the VOC emission limit established in Condition D.4.1(e). Records necessary to demonstrate compliance shall be available not later than 30 days of the end of each compliance period.

(1) The amount and VOC content of each coating material and solvent used monthly.

(A) Records shall include, but not limited to 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.

(2) The calculated monthly volume weighted average emission in pounds per gallon coating as applied from each of the Black out and Cavity Wax.

(c) To document the compliance status with Condition D.4.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish the compliance status with the VOC emission limit established in Condition D.4.2. Records necessary to demonstrate compliance shall be available not later than 30 days of the end of each compliance period.

(1) The amount and VOC content of each coating material and solvent used daily for coatings applied by the Topcoat Coating Operation and Topcoat on-line repair, both identified as PA-07.

(A) Records shall include, but not limited to 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.

(2) A log of the dates of use.

(3) The water content of each coating material used (as applied).

(4) The calculated daily volume weighted average VOC content per gallon of the coatings less water as applied from the Topcoat Coating Operation and the Topcoat on-line repair, both identified as PA-07.

(d) To document the compliance status with Condition D.4.10, the Permittee shall maintain a log of the monthly overspray observations, records of daily visual inspection of the dry filters, dates of any water/polymer emulsion wash system warning system alarm and corrective actions taken and monthly inspections on the rooftops.

(e) To document the compliance status with Condition D.4.9, the Permittee shall maintain records of the continuous temperature records (on a three-hour average basis) for the Topcoat Coating Operation, identified as PA-07 regenerative thermal oxidizers (Body Oven RTO with stack ID 1100 and Body Booth RTO with stack ID 1101) and the three-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(f) To document the compliance status with Condition D.4.3, the Permittee shall maintain on file vendors guarantees and/or certifications for the dry filters efficiency.

(g) To document the compliance status with Condition D.4.11, the Permittee shall maintain records of the Body Booth RTO and Body Oven RTO shutdowns due to fan Hertz deviations

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

D.4.13 Reporting Requirements

A monthly summary of the information to document the compliance status with Condition D.4.1 shall be submitted to IDEM, OAQ using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1 (34).

## SECTION D.5 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]:**

(b) Plastics Operations:

(1) Plastic Parts Coating Line, identified as PO-02, with a capacity of 120 hangers per hour, consisting of the following:

(A) Alkaline pretreatment process, identified as PO-01.

(B) One (1) dry-off tunnel, exhausting to stack ID 2000.

(C) One (1) primer spray booth, utilizing High Volume Low Pressure (HVLP) and/or electrostatic application systems, using water/polymer emulsion wash system to control particulate overspray, exhausting to stack ID 2002.

(D) One (1) basecoat spray booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system to control particulate overspray. If waterborne basecoat is utilized, the basecoat spray booth will exhaust to stack ID 2003 and stack ID 2004. If solventborne basecoat is utilized, the basecoat spray booth will be controlled by one (1) RTO, identified as Bumper RTO with stack ID 2029.

(E) One (1) clearcoat spray booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/oil emulsion wash system to control particulate overspray, and VOC emissions controlled by one (1) RTO, with a maximum heat input capacity of 14.00 MMBtu/hr, identified as Bumper RTO, with stack ID 2029.

(F) One (1) clearcoat flashoff area.

(G) One (1) plastic parts oven tunnel which consists of two zones with one (1) 2.6 MMBtu/hr burner on each zone, controlled by one (1) RTO, identified as Bumper RTO with stack ID 2029.

(H) One (1) natural gas-fired air makeup unit, equipped with a two-stage burner, with a combined maximum heat input capacity of 19.0 MMBtu/hr.

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

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

D.5.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 8-1-6]

Pursuant to 326 IAC 2-2-3, the Best Available Control Technology (PSD BACT) for the Plastic Parts Coating Line, identified as PO-02, and the plastic parts injection molding machines, identified as PO-06 and PO-07, shall be as follows:

(a) The VOC emissions, from the primer coating process shall not exceed 0.90 pound per gallon of coating (lbs/gal) applied, based on a daily volume weighted average.

(b) The VOC emissions from the basecoat coating booth after control when using solvent-borne basecoat, shall not exceed 1.15 lbs/gal of coating applied, based on a daily volume weighted average.

(c) The VOC emissions after control from the clearcoat coating booth, shall not exceed 3.25 lbs/gal of coating applied, based on a daily volume weighted average.

(d) The capture system from the clearcoat booth of the Plastic Parts Coating Line shall be vented into Bumper RTO with stack ID 2029. The Bumper RTO shall achieve a minimum destruction efficiency of ninety-five percent (95%).

(e) The daily volume weighted average of the VOC content of the coatings applied to the Instrument Panel, shall not exceed 2.3 lbs/gallon less water of coating applied.

(f) Good work practices which includes the following:

(1) The use of robotic automatic spray applicators to minimize paint usage.

(2) 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.

(3) Solvent collection containers shall be kept closed when not in use.

(4) Clean-up rags with solvent shall be stored in closed containers.

(5) VOC emissions shall be minimized during cleaning of storage, mixing, and conveying equipment.

(g) The PSD BACT for the plastic parts production shall be the use of injection molding in the process to minimize VOC emissions.

(h) The PSD BACT requirements for the combustion facilities in SECTION D.5, are contained in SECTION D.10.

Compliance with (a) through (f) of this condition shall satisfy the requirements of 326 IAC 8-1-6.

D.5.2 PSD BACT for PM and PM10 [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3, Best Available Control Technology (PSD BACT), the PM and PM10 emissions from the water/polymerl emulsion wash controlling the particulate emissions from the Plastic Parts Coating Line ID PO-02, shall be limited to 0.0015 grains per standard cubic foot (gr/scf) of exhaust air and 99% control efficiency. The Department may revise this permit to adjust the PM and PM10 limitation of 0.0015 gr/scf based upon the results of the stack test required in Condition D.5.5. PM-10 includes filterable and condensible PM-10. Any revisions of the emissions limits made as the result of this provision shall be subject to the best available control technology (BACT) review and air quality analysis, specified in 326 IAC 2-2. The Department will provide an opportunity for public notice and comment prior to finalizing any permit revision. IC 13-15-7-3 (revocation or Modification of a Permit: appeal to Board) shall apply to this permit condition.

D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

**Compliance Determination Requirements**

D.5.4 Regenerative Thermal Oxidizer (RTO) [326 IAC 2-2]

The basecoat booth (when using solvent-borne basecoat), the clearcoat booth and the oven exhausts from the Plastic Parts Coating Line ID PO-02 shall be vented to regenerative thermal oxidizer (Bumper RTO with stack ID 2029) at all times when the line is in operation.

D.5.5 Testing Requirements [326 IAC 2-2] [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]

(a) Within one (1) year of issuance of SSM 031-30713-00026 or within sixty (60) days after achieving maximum capacity but no later than one hundred and eighty (180) days after startup of the modification receiving approval in 2011 (additional robots) at the Plastic Parts Coating Line ID PO-02, whichever occurs first, the Permittee shall conduct performance tests of the Plastic Parts Coating Line ID PO-02, to determine compliance with the limits on VOC emissions and destruction efficiency of the regenerative thermal oxidizer (RTO #3 with stack ID 2029), utilizing methods as approved by the Commissioner. This testing shall be repeated at least once every two and half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to performance testing required by this condition.

(b) Within sixty (60) days after achieving maximum capacity but no later than one hundred and eighty (180) days after startup of the modification receiving approval in 2011 (additional robots) at the Plastic Parts Coating Line (PO-02), in order to demonstrate compliance with Condition D.5.2, the Permittee shall conduct performance tests to measure the PM/PM10 emission rates in grains per standard cubic feet of exhaust air of the water/oil emulsion wash controlling the primer booth, basecoat booth, and clearcoat booth of the Plastic Parts Coating Line (PO-02), utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensible PM-10. This testing shall be repeated at least once every two and half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to performance testing required by this condition.

D.5.6 Volatile Organic Compounds (VOC) [326 IAC 2-2]

(a) Compliance with the VOC content and usage limitations contained in Condition D.5.1 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 VOC limits in Condition D.5.1(a) through (c) which apply after controls to emissions from the Plastic Parts Coating Line ID PO-02 shall be determined using the following equation:

$$DWA = \frac{\sum_{i=1}^{n} (C_i)(U_i) \times (1-(CE \times DRE))}{\sum_{i=1}^{n} U_i}$$

where:
DWA = daily calculated volume weighted average emissions in pounds per gallon coating applied.
C = VOC content of coating $_i$, lb VOC/gal
U = actual coating $_i$ usage, gal/day
n = no. of coatings used during the day
CE = capture efficiency of the emission system vented to the RTO
DRE =destruction/removal efficiency of the RTO

(c) Compliance with the PSD BACT VOC limit in Condition D.5.1(e) for coating instrument panels shall utilize the same equation in (b).

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

D.5.7 Regenerative Thermal Oxidizer (RTO) Temperature [326 IAC 2-2] [40 CFR Part 64]

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the Plastic Parts Coating Line ID PO-02, regenerative thermal oxidizer (Bumper RTO with stack ID 2029) for measuring operating temperature. For the purposes of this condition, continuous shall mean no less than once per fifteen (15) minutes. 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 three (3) hour rolling average operating temperature of the thermal oxidizer shall be maintained at a minimum temperature of 1400$^{o}$F. Whenever the three (3) hour average temperature is below 1400$^{o}$F or the three (3) hour average temperature established during the latest stack test, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) The Permittee shall determine the three (3) hour average temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.5.1 and D.5.2, 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) hour rolling average temperature as observed during the compliant stack test.

The instruments used for determining the temperature shall comply with Section C – Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

D.5.8 Water/Polymer Emulsion Wash and Dry Filters Monitoring

(a) For Plastic Parts Coating Line ID PO-02:
Daily inspection shall be performed prior to the Plastic Parts Coating line operation to verify the proper placement and configuration of the dry filters. Daily visual inspections shall be performed on the water/polymer emulsion wash system associated with the Plastic Parts Coating Line ID PO-02 stacks (ID 2002, ID 2203, ID 2204, and ID 2005) while one or more of the booths are in operation to verify the control system proper operation. A warning system shall be installed and operated that will automatically activates whenever the water/polymer emulsion circulation pump is down. Whenever a warning signal is received, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground except during inclement weather. When a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.5.9 Parametric Monitoring [326 IAC 8-2-2] [40 CFR Part 64]

(a) The Permittee shall determine the appropriate duct pressure or fan amperage or fan Hertz from the most recent valid stack test that demonstrates compliance with limit in condition D.5.1, as approved by IDEM.

(b) The equipment to measure fan Hertz shall be equipped with “system interlocks”, which shall automatically shutdown the affected paint operations if fan Hertz is outside the normal range established in the most recent compliant stack test. The interlocks shall automatically prohibit entry of additional vehicles to the spray booths.

(c) No new vehicle shall enter the paint line as the system is in the process to empty the vehicles during shutdown.

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

D.5.10 Record Keeping Requirements [326 IAC 8-2-2]

(a) To document the compliance status with Condition D.5.1(a), (b), (c), and (e), the Permittee shall maintain 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 the compliance status with the VOC emission limits established in Conditions D.5.1(a), (b), (c), and (e). Records necessary to demonstrate compliance shall be available not later than 30 days of the end of each compliance period.

(1) The amount and VOC content of each coating material and solvent used daily for coatings applied by the Plastic Parts Coating Line, identified as PO-02.

(A) Records shall include, but not limited to 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.

(2) A log of the dates of use.

(3) The calculated daily volume weighted average emission in pounds per gallon of coating applied from the Plastic Parts Coating Line, identified as PO-02.

(b) To document the compliance status with Condition D.5.8, the Permittee shall maintain a log of the monthly overspray observations, records of daily visual inspection of the dry filters, dates of any water/polymer emulsion wash system warning system alarm and corrective actions taken and monthly inspections on the rooftops.

(c) To document the compliance status with Condition D.5.7, the Permittee shall maintain records of the continuous temperature records (on a three-hour average basis) for the Plastic Parts Coating Line ID PO-02 regenerative Bumper RTO with stack ID 2029) and the three-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

(d) To document the compliance status with Condition D.5.9, the Permittee shall maintain records of the Bumper RTO shutdowns due to fan Hertz deviations

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

### D.5.11 Reporting Requirements

A monthly summary of the information to document compliance with Condition D.5.1 shall be submitted quarterly to IDEM, OAQ using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (34).

## SECTION D.6 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]**

(c) Final Assembly Operations:

(2) Gasoline dispensing operation, with a capacity of 70 units per hour, consisting of the following:

(A) Gasoline dispensing equipment, identified as AF-02, located at the assembly line, for filling new vehicles, through the use of on board vapor recovery (ORVR) on a minimum of 95% of the vehicles manufactured.

(B) One (1) gasoline storage tank, identified as FAC-99, located at the tank farm, with a capacity of 19,800 gallons, equipped with submerged fill and Stage 1 vapor balance.

(C) One (1) premium gasoline storage tank, identified as FAC-101, approved in 2011 for construction, located at the tank farm, with a capacity of 19,800 gallons, equipped with submerged fill and Stage 1 vapor balance.

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

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

D.6.1 Prevention of Significant Deterioration (PSD) – Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 8-4-6]

Pursuant to 326 IAC 2-2-3, the Best Available Control Technology (PSD BACT) for the Gasoline Dispensing Facility, identified as AF-02, shall be as follows:

(a) The throughput of gasoline to the one (1) gasoline storage tank, identified as FAC-99, and the subsequent dispensing through AF-02, shall not exceed 2,250,000 gallons per twelve consecutive month period with compliance determined at the end of each month.

(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 submerged 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. The Stage I vapor recovery system shall be in operation at all times when the one (1) gasoline storage tank, identified as FAC-99 is in operation, and the use of on-board vapor recovery (ORVR) system on a minimum of 95% of the vehicles manufactured.

(c) If the owner or employees of the owner of a gasoline dispensing facility are not present during loading, it shall be the responsibility of the owner or the 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 manufacturer's specifications.

(d) The Permittee shall conduct retesting for vapor leakage and blockage from all vapor collection and control systems, including the associated permanent installation, and successfully pass the test, at least every five (5) years or upon major system replacement or modification. A major system

modification is considered to be replacing, repairing, or upgrading seventy-five percent (75%) or more of a vapor collection and control system of a facility.

Compliance with this condition shall satisfy the requirements of 326 IAC 8-4-6.

D.6.2 Volatile Organic Compounds (VOC) [326 IAC 8-4-6]

Pursuant to 326 IAC 8-4-6(b) (Gasoline Dispensing Facilities), Stage I vapor recovery system requirements at the one (1) premium gasoline storage tank, identified as FAC-101, are as follows:

(a) The Permittee shall not allow the transfer of gasoline between any transport and any storage tank unless the tank is equipped with the following:

(1) A submerged fill pipe that extends to not more than six (6) inches from the bottom of the storage tank.

(2) Either a pressure relief valve set to release at not 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) If the owner or employees of the owner of a gasoline dispensing facility are not present during loading, it shall be the responsibility of the owner or the operator of the transport to make certain the vapor balance system is:

(1) connected between the transport and the storage tank; and

(2) operating according to manufacturer's specifications.

D.6.3 Volatile Organic Compounds (VOC) [326 IAC 8-4-9]

Pursuant to 326 IAC 8-4-9 (Leaks from transports and vapor collection systems, records) the owner of the gasoline transport system shall operate a vapor control system. The requirements are as follows:

(a) The Permittee shall not allow a gasoline transport that is subject to this rule and that has a capacity of two thousand (2,000) gallons or more to be filled or emptied unless the owner of the gasoline transport completes the following:

(1) Annual leak detection testing before the end of the twelfth (12th) calendar month following the previous year's test, according to test procedures contained in 40 CFR 63.425 (e), as follows:

(A) Conduct the pressure and vacuum tests for the transport's cargo tank using a time period of five (5) minutes. The initial pressure for the pressure test shall be four hundred sixty (460) millimeters H2O (eighteen (18) inches H2O) gauge. The initial vacuum for the vacuum test shall be one hundred fifty (150) millimeters H2O (six (6) inches H2O) gauge. The maximum allowable pressure or vacuum change is twenty-five (25) millimeters H2O (one (1) inch H2O) in five (5) minutes.

(B) Conduct the pressure test of the cargo tank's internal vapor valve as follows:

(i) After completing the test under clause (A) of this condition, use the procedures in 40 CFR 60, Appendix A, Method 27 to repressurize the tank to four hundred sixty (460) millimeters H2O (eighteen (18) inches H2O) gauge. Close the transport's internal vapor valve or valves, thereby isolating the vapor return line and manifold from the tank.

(ii) Relieve the pressure in the vapor return line to atmospheric pressure, then reseal the line. After five (5) minutes, record the gauge pressure in the vapor return line and manifold. The maximum allowable five (5) minute pressure increase is one hundred thirty (130) millimeters H2O (five (5) inches H2O).

(2) Repairs by the gasoline transport owner or operator, if the transport does not meet the criteria of subdivision (1) of this condition, and retesting to prove compliance with the criteria of subdivision (1) of this condition.

(b) The annual test data remain valid until the end of the twelfth (12th) calendar month following the test. The owner of the gasoline transport shall be responsible for compliance with subsection (a) of this condition, and shall provide the Permittee or the owner of the loading facility with the most recent valid modified 40 CFR 60, Appendix A, Method 27 test results upon request. The Permittee shall take all reasonable steps, including reviewing the test date and tester's signature, to ensure that gasoline transports loading at its facility comply with subsection (a) of this condition.

(c) The Permittee shall:

(1) Design and operate the applicable system and the gasoline loading equipment in a manner that prevents:

(A) Gauge pressure from exceeding four thousand five hundred (4,500) pascals (eighteen (18) inches of H2O) and a vacuum from exceeding one thousand five hundred (1,500) pascals (six (6) inches of H2O) in the gasoline transport;

(B) A reading equal to or greater than twenty-one thousand (21,000) parts per million as propane, from all points on the perimeter of a potential leak source when measured by the method referenced in 40 CFR 60, Appendix A, Method 21, or an equivalent procedure approved by the commissioner during loading or unloading operations at gasoline dispensing facilities, bulk plants, and bulk terminals; and

(C) Avoidable visible liquid leaks during loading or unloading operations at gasoline dispensing facilities, bulk plants, and bulk terminals.

(2) Within fifteen (15) days, repair and retest a vapor balance, collection, or control system that exceeds the limits in subdivision (1) of this condition.

(d) The department may, at any time, monitor a gasoline transport, vapor balance, or vapor control system to confirm continuing compliance with (a) of this condition.

(e) If the commissioner allows alternative test procedures, such method shall be submitted to the U.S. EPA as a SIP revision.

(f) During compliance tests conducted under 326 IAC 3-6 (stack testing), each vapor balance or control system shall be tested applying the standards described in subsection (c)(1)(B) of this condition. Testers shall use 40 CFR 60, Appendix A, Method 21 to determine if there are any leaks from the hatches and the flanges of the gasoline transports. If any leak is detected, the transport cannot be used for the capacity of the compliance test of the two (2) gasoline storage tanks, identified as FAC-99 and FAC-101, and the one (1) gasoline dispensing unit, identified as AF-102. The threshold for leaks shall be ten thousand (10,000) parts per million methane.

D.6.4 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 the one (1) gasoline storage tank (FAC-99), the one (1) premium gasoline storage tank (FAC-101), and their control devices.

**Compliance Determination Requirements**

D.6.5 Volatile Organic Compounds [326 IAC 2-2]

In order to comply with Conditions D.6.1 and D.6.2, the Stage I vapor recovery systems for VOC control shall be in operation at all times when gasoline is being transferred, or dispensed.

D.6.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) To demonstrate compliance with Conditions D.6.1 and D.6.2, the Permittee shall perform testing required in Condition D.6.3.

(b) If the commissioner allows alternative test procedures in Condition D.6.3(c)(1)(B), such method shall be submitted to the U.S. EPA as a SIP revision.

(c) During compliance tests conducted under 326 IAC 3-6 (stack testing), each vapor balance or control system shall be tested applying the standards described in Condition D.6.3(c)(1)(B). Testers shall use 40 CFR 60, Appendix A, Method 21 to determine if there are any leaks from the hatches and the flanges of the gasoline transports. If any leak is detected, the transport cannot be used for the capacity of the compliance test of the two (2) gasoline storage tanks (FAC-99 and FAC-101) and the one (1) gasoline dispensing unit (AF-02). The threshold for leaks shall be ten thousand (10,000) parts per million methane.

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

D.6.7 Vapor Recovery System Operation

For the Stage I vapor recovery systems in order to document compliance with Conditions D.6.1 and D.6.2, the Permittee shall perform daily checks of the key operating parameters on days in which the filling of gasoline storage tanks is conducted, including venting for the Stage I vapor recovery system.

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

D.6.8 Record Keeping Requirements [326 IAC 2-7-5] [326 IAC 8-4-9]

(a) To document compliance with the sourcewide VOC limit in Condition D.6.1(a), the Permittee shall maintain records at the source that verify the throughput of gasoline received and dispensed.

(b) To document compliance with Condition D.6.3, the owner or operator of a vapor balance or vapor control system subject to this section shall maintain records of all certification testing. The records shall identify the following:

(1) The vapor balance, vapor collection, or vapor control system.
(2) The date of the test and, if applicable, retest.
(3) The results of the test and, if applicable, retest.

(c) To document compliance with ConditionD.6.3, the owner or operator of a gasoline transport subject to this section shall keep a legible copy of the transport's most recent valid annual modified 40 CFR 60, Appendix A, Method 27 test either in the cab of the transport or affixed to the transport trailer. The test record shall identify the following:

(1) The gasoline transport.
(2) The type and date of the test and, if applicable, date of retest.
(3) The test methods, test data, and results certified as true, accurate, and in compliance with this rule by the person who performs the test.

This copy shall be made available immediately upon request to the department and to the owner of the loading facility for inspection and review. The department shall be allowed to make copies of the test results.

(d) To document compliance with Condition D.6.3, the Permittee shall maintain records of the following:

(1) Certification testing required, if using an alternative testing procedure, as allowed under Condition D.6.3(e) from all vapor collection and control systems, including the associated permanent installation.

(2) Test required under Condition D.6.3(f).

(e) To document compliance with Condition D.6.7, the Permittee shall maintain records of the key operating parameters when the Stage I vapor recovery system is in use.

(f) To document compliance with Condition D.6.1(b)(3), the Permittee shall maintain a record of the number of vehicles manufactured and the number of vehicles manufactured with ORVR on a monthly basis.

(g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.6.9 Reporting Requirements

A monthly summary of the information to document compliance with Condition D.6.1(a) 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.7 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]:**

(6) Miscellaneous cleaning and purge operation – paint operations, consisting of the following:

(A) Purge and clean-up solvent usage and recovery system, identified as PA-14, including virgin solvent distribution, day tanks, small portable containers including containers that meet the definition of cold cleaners, and spent solvent recovery.

(b) Plastics Operations:

(3) Two (2) plastic parts injection molding machines, identified as PO-06 and PO-07, with a combined maximum throughput of 4,050 pounds per hour plastic pellets.

.

(c) Final Assembly Operations:

(1) Assembly window install and miscellaneous operations, identified as AF-01, with a capacity of 70 units per hour, consisting of all coatings, sealers, lubricants and related cleaning solvents used for auto assembly, including processes used to install window glass in vehicles, including body primer, glass cleaner, glass primer, and glass adhesive. Includes robotic and manual application equipment, coating delivery/circulation systems and raw material storage containers.

(d) Weld sealer process using manual and robotic weld sealer application equipment, material delivery systems and raw material storage, identified as WE-01.

(g) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, brazing equipment, cutting torches, soldering equipment, welding equipment:

(2) Body welding and finishing, identified as WE-02, using resistance welding and grinding, and MIG welding stations. The SR station "Stationary Robots" and backup MIG welding and grinding operations are controlled by cartridge filters.

Insignificant Activities

(z) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 26 lb/day PM; 5 lb/hr or 25 lb/day SO2; 5 lb/hr or 25 lb/day NOx; 3 lb/hr or 15 lb/day VOC; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:

(5) Eight (8) cold cleaner degreasers, identified as ST-02, MS-02, WE-07, AF-05, VQ-01, PA-27, PO-20 and FAC-176, located at designated areas.

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

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

D.7.1 Prevention of Significant Deterioration (PSD) – Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3, the Best Available Control Technology for Volatile Organic Compounds (VOC) for the following emission units shall be as follows:

(a) The annual VOC usages of wiping/cleaning solvents and purge solvents from the Plastic operations, identified as PO-05, minus the amount of VOC in the purge material collected shall be limited to 39.12 tons per twelve (12) consecutive month period with compliance determined at the

end of each month. This VOC limit shall account for the capture efficiency from the purge solvent capture systems used each time that any coating applicator is purged.

(b) The annual VOC usages of wiping/cleaning solvents and purge solvents from the Body Painting operations, identified as PA-14, minus the amount of VOC in the purge material collected shall be limited to 67.09 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This VOC limit shall account for the capture efficiency from the purge solvent capture systems used each time that any coating applicator is purged.

(c) The monthly volume weighted average of the VOC content of the Weld Sealer (WE-01) coating used, shall not exceed 0.30 pound per gallon of coating (lbs/gal) as applied. The annual VOC emissions from this operation shall not exceed 3.91 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(d) The monthly volume weighted average of the VOC content of the coatings used in the Assembly Window Install and Miscellaneous operations, identified as AF-01, shall not exceed 0.40 pounds of VOC per gallon of coating, as applied (lb/gal of coating). The annual VOC emissions from this operation shall not exceed 24.78 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(e) The purge solvent capture systems from the body paint coating operations shall have a minimum purge solvent capture efficiency of 90%.

(f) The purge solvent capture systems from the plastic painting operation shall have a minimum purge solvent capture efficiency of 85%.

(g) Collected purge materials from the body paint coating lines and plastic painting lines shall be retained in closed containers until recycled on-site or shipped offsite for recycling or disposal.

(h) The total plant-wide VOC emissions from the miscellaneous operations in this SECTION D.7, which is the summation of the VOC emissions in (a) through (d) of this condition, shall not exceed 134.9 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(i) The PSD BACT requirements for the combustion facilities in SECTION D.7, are contained in SECTION D.10.

Compliance with this condition shall satisfy the requirements of 326 IAC 2-2.

D.7.2 Cleaning Work Practices [326 IAC 2-2]

The following work practices for cleaning and solvent purging operations shall be observed:

(a) Use of plastic and paper masking to cover certain equipment in booths and floors around the booths to reduce solvent usage;

(b) Capture of paint line cleaning solvent for off-site recycling or disposal to reduce VOC emissions;

(c) Use of low VOC or water-based solvents in certain processes, where applicable, (water-based grate masking, high pressure blasting);

(d) Use of metal shot blasting and alkaline painting stripping;

(e) Avoid spillage and splashing during handling of solvent, and if spillage, splashing, or leaks occur, they should be repaired or corrected immediately;

(f) Use covers or closed containers for both fresh and waste cleaning solvent;

(g) Avoid using absorbent or porous items, such as rags, bags, etc., for handling the solvent-wetted items; and

(h) Use closed containers to store or dispose of cloth, paper or other material impregnated with VOC.

In addition to these work practices, multi-feed paint lines directly to automatic applicators shall be installed, which reduces the amount of paint lines that need to be cleaned.

D.7.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, 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; and

(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.7.4 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 without remote solvent reservoirs constructed after July 1, 1990, shall ensure that the following 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 (38oC) (one hundred degrees Fahrenheit (100oF));

(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 (38oC) (one hundred degrees Fahrenheit (100oF)), 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 (38oC) (one hundred degrees Fahrenheit (100oF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9oC) (one hundred twenty degrees Fahrenheit (120oF)):

(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 of 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 construction of which commenced after July 1, 1990, 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.

D.7.5 PSD BACT for PM and PM10 [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3, Best Available Control Technology (BACT), the PM and PM10 emissions from the cartridge filters controlling the body shop welding and finishing (WE-02 and WE-03) shall be limited to 0.0015 grains per standard cubic foot (gr/scf) of exhaust air and 99% control efficiency. PM-10 includes filterable and condensible PM-10.

D.7.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

**Compliance Determination Requirements**

D.7.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-4(a)(3)] [326 IAC 8-1-2(a)] [326 IAC 2-2]

Compliance with the VOC content and usage limitations contained in Condition D.7.1(a), (b), (c), (d), and (h) 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.7.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-2(a)(7)]

(a) Compliance with the VOC limits for the solvent purging operation in Condition D.7.1(e) and (f) shall be determined through the following:

(1) Purge solvent usage and collection shall be monitored separately for the Plastic operations and Body Painting operations. For each of the Plastic operations and Body

Painting coating systems, the Permittee shall record the volume of purge solvent delivered to the spray applicators, and shall use collection and shipping records to monitor the volume of the purge materials collected for recycling or disposal. The purge material collection/capture, as a percentage of purge solvent usage shall be determined on a monthly basis as follows:

$$\text{Purge Solvent Collection/Capture Efficiency} = \frac{Sr * VOCr}{Pu * VOCv}$$

Where:
Sr = Purge material collected and/or shipped for recovery (gallons)
Pu = Purge solvent usage (gallons)
VOCv = VOC content virgin purge (lb/gal)
VOCr = VOC content in purge materials collected and/or shipped for recovery (lb/gal)

(b) Pursuant to 326 IAC 8-1-2(a)(7), when volume weighted averaging of the coatings is used to determine compliance with the limitation set in Conditions D.7.1(c) and D.7.1(d), shall be determined by the following equation:

$$A = \frac{\sum_{i=1}^{n} (C_i)(U_i)}{\sum_{i=1}^{n} U_i}$$

where:
A = monthly calculated volume weighted average emissions in pounds per gallon coating applied.
C = VOC content of coating i, lb VOC/gal
U = actual coating i usage, gal/month
n = no. of coatings used during the day

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

There are no specific Compliance Monitoring Requirements applicable to these emission units.

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

D.7.9 Record Keeping Requirements

(a) To document the compliance status with Condition D.7.1(a) and (b), the Permittee shall maintain 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 the compliance status with the VOC usage limits and the VOC emission limits established in Condition D.7.1(a) and (b). Records necessary to demonstrate compliance shall be available not later than thirty (30) days of the end of each compliance period.

(1) The amount and VOC content of each wiping/cleaning solvent and each purge solvent used monthly from the purge and clean-up solvent and recovery systems for the Paint Operations (PA-14) and the Plastic Operations (PO-05).

(A) Records shall include, but not limited to, 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.

(2) The amount and percentage of purge material collected and/or shipped on a monthly basis.

(3) The calculated monthly VOC emissions from the wiping/cleaning and purge solvent usage from the purge and clean-up solvent and recovery systems for the Paint Operations (PA-14) and the Plastic Operations (PO-05).

(b) To document the compliance status with Condition D.7.1(c) and (d), the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken as stated below and shall be complete and sufficient to establish the compliance status with the VOC usage limits and the VOC emission limits established in Condition D.7.1(c) and (d). Records necessary to demonstrate compliance shall be available within thirty (30) days of the end of each compliance period.

(1) The amount and VOC content of each coating, sealer, and adhesive material, and each solvent used monthly from the Weld Sealer (WE-01) and from the Assembly Window Install and Miscellaneous operations (AF-01).

(A) Records shall include, but not limited to, 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.

(2) The calculated monthly volume weighted average VOC emitted in pounds per gallon of the coatings used as applied, (sealers, adhesives, oils) for each month.

(c) To document the compliance status with Condition D.7.5, the Permittee shall maintain on file vendors guarantees and/or certifications for the cartridge filters efficiency.

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

D.7.10 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.7.1 shall be submitted to IDEM, OAQ using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1 (34).

## SECTION D.8 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]:**

Insignificant Activities

(c) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.

(A) Two (2) diesel fuel storage tanks for fire pumps, identified as FAC-93 and FAC-94, each with a capacity of 300 gallons, each equipped with submerged fill.
(B) Three (3) diesel fuel storage tanks for generators, identified as FAC-95, FAC-177 and FAC-178, each with a capacity of 150 gallons.

(z) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 26 lb/day PM; 5 lb/hr or 25 lb/day SO2; 5 lb/hr or 25 lb/day NOx; 3 lb/hr or 15 lb/day VOC; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:

(1) Windshield washer fluid fill operation, with a capacity of 70 units per hour, consisting of the following:

(A) Water/methanol fluid mixing and dispensing equipment, identified as AF-03, located at the assembly line, for filling new vehicles.
(B) One (1) windshield washer fluid storage tank, identified as FAC-102, located at the tank farm, with a capacity of 2,000 gallons, equipped with submerged fill.

(2) The following tanks, located at the Tank Farm:

(A) One (1) automatic transmission fluid storage tank, identified as FAC-96, with a capacity of 10,000 gallons, equipped with submerged fill. [326 IAC 12]
(B) One (1) antifreeze storage tank, identified as FAC-103, with a capacity of 10,000 gallons, equipped with submerged fill. [326 IAC 12]
(C) One (1) brake fluid storage tank, identified as FAC-98, with a capacity of 2,000 gallons, equipped with submerged fill.
(D) One (1) power steering fluid storage tank, identified as FAC-204, with a capacity of 2,000 gallons, equipped with submerged fill.
(E) One (1) manual transmission fluid storage tank, identified as FAC-104, with a capacity of 2,000 gallons, equipped with submerged fill.
(F) One (1) diesel fuel storage tank for yard truck operations, identified as MS-01, with a capacity of 3,000 gallons, equipped with submerged fill.

(3) The following tanks, located at the Utility Building:

(A) One (1) diesel fuel storage tank, identified as FAC-90, with a capacity of 2,000 gallons, equipped with submerged fill.

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

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

D.8.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2]

Pursuant to 326 IAC 2-2-3, VOC BACT for the facilities described in this section is the following:

(a) All diesel fuel and windshield washer storage tanks in this section shall be equipped with:

(1) a fixed roof, and

(2) a submerged fill pipe.

D.8.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

## SECTION D.9 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)] Repair Operations**

Insignificant Activities

(a) Painting Operations:

(3) Topcoat in-line repair, which includes repair area for small interior topcoat, imperfections, manual application equipment, identified as PA-09.

(7) Final Repair, identified as PA-12, which includes repair coating booths and general areas, using manual application systems, and IR curing equipment.

(8) Final Repair – Air Dry, identified as PA-13, using air dry materials and manual application system.

(10) Plastic Parts Touch-up Booth, identified as PO-17, using dry filters for particulates control and manual application systems.

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

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

D.9.1 Prevention of Significant Deterioration (PSD) - Best Available Control Technology for Volatile Organic Compounds (VOC) [326 IAC 2-2] [326 IAC 8-2-2]

(a) Pursuant to 326 IAC 2-2-3, Best Available Control Technology (PSD BACT), and 326 IAC 8-2-2, the VOC content of the coatings used in the Final Repair, identified as PA-12, shall not exceed a daily volume weighted average of 4.8 pounds per gallon of coatings less water as applied.

(b) Pursuant to 326 IAC 2-2-3, Best Available Control Technology (PSD BACT), the VOC usage from Final Repair-Air dry, identified as PA-13, shall be less than 15 pounds per day. Compliance with this limit shall make 326 IAC 8-2-2, not applicable.

(c) Pursuant to 326 IAC 2-2-3, Best Available Control Technology (PSD BACT), the VOC usage from Topcoat in-line repair, identified as PA-09, shall be less than 15 pounds per day. Compliance with this limit shall make 326 IAC 8-2-2, not applicable.

(d) Pursuant to 326 IAC 2-2-3, Best Available Control Technology (PSD BACT), the VOC usage from Plastic Parts Touch-up booth, identified as PO-17, shall be less than 10.0 pounds per day.

D.9.2 PSD BACT for PM and PM10 [326 IAC 2-2]

Pursuant to 326 IAC 2-2, Best Available Control Technology (BACT), the PM and PM10 emissions from the dry filters controlling the Final Repair, identified as PA-12 and Plastic Parts Touch-up Booth, identified as PO-17, shall be limited to 0.0015 grains per standard cubic foot (gr/scf) of exhaust air and 98% control efficiency. PM-10 includes filterable and condensible PM-10.

D.9.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

**Compliance Determination Requirements**

D.9.4 Volatile Organic Compounds (VOC) [326 IAC 2-2]

(a) Compliance with the VOC content and usage limitations contained in Condition D.9.1 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 VOC limits in Condition D.9.1(a) shall be determined using the following equation:

$$DWA = \frac{\sum_{i=1}^{n} (C_i)(U_i)}{\sum_{i=1}^{n} U_i}$$

where:
DWA = daily calculated volume weighted average emissions in pounds per gallon coating applied.
C = VOC content of coating $_i$, lb VOC/gal
U = actual coating $_i$ usage, gal/day
n = no. of coatings used during the day

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

D.9.5 Dry Filters 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 Repair, identified as PA-12 stack (ID 1063) and Plastic Parts Touch-up Booth, identified as PO-17 stack (ID 2010) while the repair is in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground, except during inclement weather. When a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

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

D.9.6 Record Keeping Requirements [326 IAC 8-2-2]

(a) To document the compliance status with Condition D.9.1, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish the compliance status with the VOC emission limits established in Condition D.9.1. Records necessary to demonstrate compliance shall be available not later than 30 days of the end of each compliance period.

(1) The amount and VOC content of each coating material and solvent used daily for coatings applied by the Topcoat in-line repair, identified as PA-09, Final Repair, identified as PA-12, and Final Repair-Air Dry, identified as PA-13.

(A) Records shall include, but not limited to 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.

(2) A log of the dates of use.

(3) The calculated daily volume weighted average VOC emission in pounds per gallon as applied from Final Repair, identified as PA-12.

(4) The calculated daily VOC emissions from Topcoat in-line repair, identified as PA-09, Final Repair-Air Dry, identified as PA-13, and Plastic Parts Touch-up Booth, identified as PO-17.

(b) To document the compliance status with Condition D.9.5, the Permittee shall maintain a log of the weekly overspray observations, and the daily and monthly inspections.

(c) To document the compliance status with Condition D.9.2, the Permittee shall maintain on file vendors guarantees and/or certifications for the dry filters efficiency.

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

D.9.7 Reporting Requirements

A monthly summary of the information to document compliance with Condition D.9.1 shall be submitted quarterly to IDEM, OAQ using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1 (34).

**SECTION D.10 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(15)]: – Various Combustion Units**

(a) Body Painting Operations:

(1) Electrodeposition (E-Coat) Coating Line, identified as PA-02, with a capacity of 72 units per hour, consisting of the following:

(B) One (1) Electrodeposition coating dip tank, rinse stages and E-Coat oven controlled by one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 14 million British thermal units per hour (MMBtu/hr), identified as RTO #1 with stack ID 1100.
(C) One (1) E-Coat pre-heat zone, with a maximum heat input capacity of 3.7 MMBtu/hr, exhausting to stack ID 1003.
(D) One (1) natural gas-fired E-coat 4-stage oven tunnel, which consists of four (4) oven zones, each with a heat input capacity of 3.7 MMBtu/hr, controlled by one (1) RTO, identified as RTO #1 with stack ID 1100.

(3) Primer/Surfacer Coating Line, identified as PA-05, with a capacity of 80 units per hour, consisting of the following:

(B) One (1) Primer/Surfacer flashoff area, with two (2) natural gas-fired heaters, one with a maximum heat input capacity of 3.5 MMBtu/hr and one with a maximum heat input capacity of 2.6 MMBtu/hr.
(C) One (1) natural gas-fired Primer/Surfacer 4-stage oven tunnel, which consists of four (4) zones, oven zones #1, #2 and #4, each with a heat input capacity of 2.6 MMBtu/hr and oven zone #3 with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as RTO #1 with stack ID 1100.
(D) One (1) oven exit hood exhaust, exhausting to stack ID 1021.
(F) Air make-up units as follows:
(i) One (1) natural gas-fired air makeup unit, for the primer/surfacer line, equipped with a two-stage burner, with a combined maximum heat input capacity of 7.8 MMBtu/hr.

(4) Topcoat Coating Operation, identified as PA-07, with two (2) Topcoat Lines #1 and #2, with a total capacity of 88 units per hour, consisting of the following:

(B) Two (2) basecoat flashoff areas, each with one (1) natural gas-fired heater, each with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1033 and stack ID 1044.

(D) One (1) natural gas-fired Topcoat 4-stage oven tunnel, which consists of four (4) zones, oven zone #1 with a heat input capacity of 3.5 MMBtu/hr, oven zone #2 with a heat input capacity of 2.6 MMBtu/hr and oven zones #3 and #4, each with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as RTO #1 with stack ID 1100.

(F) One (1) oven exit hood exhaust, exhausting to stack ID 1037.

(G) Topcoat on-line repair, identified as PA-07, which includes:

(iii) One (1) natural gas-fired repair oven, with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1058.

**SECTION D.10 FACILITY OPERATION CONDITIONS**

(H) Air makeup units as follows:

(i) Two (2) natural gas-fired air makeup units (Basecoat #1 ASH and Basecoat #2 ASH), for the Topcoat Lines #1 and #2 basecoat booths, each equipped with a two-stage burner, each with a combined maximum heat input capacity of 8.0 MMBtu/hr.

(ii) Two (2) natural gas-fired air makeup units (Clearcoat #1 ASH and Clearcoat #2 ASH), for Topcoat Lines #1 and #2 clearcoat booths, each equipped with a two-stage burner, each with a combined maximum heat input capacity of 5.0 MMBtu/hr.

(iii) One (1) natural gas-fired air makeup unit, for the topcoat on-line repair operations, equipped with a two-stage burner (Repair ASH 1 and Repair ASH 2), with a combined maximum heat input capacity of 12.2 MMBtu/hr.

(8) One (1) natural gas-fired air makeup unit with a maximum heat input capacity of 20.0 MMBtu/hr, identified as (Working Area ASH #1, PA-21).

(9) One (1) natural gas-fired air makeup unit with a maximum heat input capacity of 8.0 MMBtu/hr, identified as (Working Area ASH #2, PA-22).

(10) One (1) natural gas -fired makeup unit with a maximum heat input capacity of 5.0 MMBtu/hr, identified as (Working Area ASH #3, PA-23).

(11) One (1) natural gas-fired HVAC units, identified as HVAC ASH #2, PA-25, each with a maximum heat input capacity of 13.0 MMBtu/hr.

(12) One (1) natural gas-fired HVAC unit, with a maximum heat input capacity of 8.00 MMBtu/hr, identified as HVAC #3 ASH, PA-26.

(b) Plastics Operations:

(1) Plastic Parts Coating Line, identified as PO-02, with a capacity of 120 hangers per hour, consisting of the following:

(E) One clearcoat spray booth, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water wash or oil emulsion system to control particulate overspray, and VOC emissions controlled by one (1) RTO, with a maximum heat input capacity of 14.0 MMBtu/hr, identified as Bumper RTO with stack ID 2029.

(G) One (1) plastic parts oven tunnel which consists of two (2) zones with one (1) 2.6 MMBtu/hr burner on each zone, controlled by one (1) RTO, identified as Bumper RTO with stack ID 2029.

(H) One (1) natural gas-fired air makeup unit, equipped with a two-stage burner, with a combined maximum heat input capacity of 19.0 MMBtu/hr.

(e) Two (2) diesel fired emergency generators, identified as FAC-84 and FAC-85, each with a rated capacity of 757 HP.

(f) One (1) diesel fired back-up generator, identified as FAC-86, with a rated capacity of 158 HP.

**SECTION D.10 FACILITY OPERATION CONDITIONS**

Insignificant Activities

(b) 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.

(1) One (1) natural gas-fired hot water heater (FAC-110) for the purpose of supplying hot water to the café kitchen, with a maximum heat input capacity of 0.50 MMBtu/hr.

(2) Four (4) natural gas-fired hot water generators, located in the body painting area, with a combined maximum heat input capacity of 24.5 MMBtu/hr.

(3) One (1) natural gas-fired air makeup unit for the Primer/Surfacer sanding and inspection booth (PA-06), with a maximum heat input capacity of 6.4 MMBtu/hr.

(4) Twenty-eight (28) natural gas-fired space heaters (FAC-53 through FAC-72 with a combined maximum heat input capacity of 2.6 MMBtu/hr and (FAC-73 through FAC-80 with a combined maximum heat input capacity of 0.8 MMBtu/hr.

(5) Natural gas-fired HVAC units (FAC-01 through FAC-07, FAC-11 through FAC-20, FAC-26 through FAC-30, FAC-32, FAC-35 through FAC-37, FAC-39 through FAC-41, FAC-43 through FAC-52, FAC-146 and FAC-147), with a combined maximum heat input capacity of 87.36 MMBtu/hr.

(6) Forty three (43) natural gas-fired space heaters (FAC-117 through FAC-130, FAC-133 through FAC-139, FAC-148 through FAC-150 and FAC-151 through FAC-169), with a combined maximum heat input capacity of 6.83 MMBtu/hr.

(7) Four (4) natural gas-fired HVAC units (FAC-116, FAC-131, FAC-132 and FAC-140), with a combined maximum heat input capacity of 2.13 MMBtu/hr.

(r) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower.

(1) One (1) substation emergency generator, identified as FAC-81, with a capacity of 133 horsepower (HP).

(2) One (1) Consolidation Center emergency generator, identified as FAC-89, with a capacity of 133 HP.

(3) One (1) Credit Union building emergency generator, identified as FAC-115, with a capacity of 133 HP.

(s) Other emergency equipment as follows: Stationary fire pumps.

(1) Two (2) stationary fire pumps, identified as FAC-82 and FAC-83, each with a rated capacity of 183 horsepower.

(t) Emergency generators as follows: Gasoline generators not exceeding 110 horsepower.

(1) Two (2) emergency generators, identified as FAC-145 and FAC-175, with a capacity of 5.5 HP each.

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

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

D.10.1 Prevention of Significant Deterioration (PSD) CO Minor Limit [326 IAC 2-2]

The CO emissions from all natural gas combustion units in this SECTION D.10 shall not exceed 187.6 pounds per million cubic feet (lb/MMCF), and the total natural gas fuel usage shall be limited to 976 million cubic feet (1,000,000 decatherms) per 12 consecutive month period with compliance determined at the end of each month. Compliance with this limit in conjunction with the PTE of eight (8) emergency generators, identified as FAC-81, FAC-84, FAC-85, FAC-86, FAC-89, FAC-115, FAC-145, FAC-175 and two (2) emergency fire pumps, identified as FAC-82 and FAC-83, limits the CO emissions to less than 100 tons per year, which renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable for CO emissions.

D.10.2 Prevention of Significant Deterioration (PSD) – Best Available Control Technology for Particulate Emissions (PM) and Nitrogen Oxides (NOx) [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-2-3, the Best Available Control Technology (PSD BACT) for the generators, identified as FAC-81 and FAC-84 through FAC-86, and the fire pumps, identified as FAC-82 and FAC-83, shall be as follows:

| Emission Unit IDs | Emission Limitation | | |
|---|---|---|---|
| | Operating Hours per year | NOx | PM |
| FAC-81 Substation Generator (133 hp), FAC-89 Consolidation Center Generator (133 hp), FAC-115 Credit Union Generator (133 hp) | 500 | 3 g/hp-hr<br>Use of Ultra Low Sulfur Diesel (ULSD) | 0.22 g/hp-hr<br>Use of ULSD |
| FAC-82, FAC-83: Fire Pumps (183 hp each) | 500 | 7.8 g/hp-hr<br>Use of ULSD | 0.4 g/hp-hr<br>Use of ULSD |
| FAC-84, FAC-85: Emergency Generators (757 hp, each) | 500 | 4.5 g/hp-hr<br>Use of ULSD | 0.15 g/hp-hr<br>Use of ULSD |
| FAC-86, 158 hp backup generator | 500 | 3 g/hp-hr<br>Use of ULSD | 0.22 g/hp-hr<br>Use of ULSD |

*Note: ULSD (Ultra Low Sulfur Diesel)*

(b) Pursuant to 326 IAC 2-2-3, the Best Available Control Technology (PSD BACT) for the Natural Gas Combustion (small heaters < 15 MMBtu/hr maximum heat input capacity), shall be as follows:

| Emission Unit IDs | Emission Limitation (lb/MMBTU) | |
|---|---|---|
| | NOx | PM |
| FAC-01 through FAC-07, FAC-11 through FAC-19, FAC-35, FAC-116, PA-05 air supply house, PA-06 air supply house, PA-07 air supply house, PA-21 through PA-26, PO-02 | 0.08 lb NOX/MMBtu | 0.0075 lb PM/MMBtu<br>Natural gas only |
| FAC-20, FAC-26, FAC-28, FAC-29, FAC-32, FAC-37, FAC-41, FAC-43 through FAC-52, FAC-140, FAC-146, FAC-147 | 0.10 lb NOx/MMBtu | 0.0075 lb PM/MMBtu<br>Natural gas only<br><br>Propane for FAC-37, FAC-41, and FAC-140 |
| PA-20 | 0.04 lb NOx/MMBtu | |

| Emission Unit IDs | Emission Limitation (lb/MMBTU) | |
|---|---|---|
| | NOx | PM |
| PA-02 bake oven, PA-05 bake oven zones 3, 4 & 5, PA-07 repair oven, PO-02 bake oven zone 2, PA-07 zones 3, 4 & 5 | 0.02 lb NOx/MMBtu | 0.0075 lb PM/MMBtu Natural gas only |
| FAC-27, FAC-30 | 0.10 lb NOx/MMBtu | |
| PA-05 flash off heaters 1 and 2, PA - 05 bake oven zones 1 and 2, PA-07 basecoat flash off heaters 1 and 2, PA-07 topcoat bake oven zones 1 and 2, PO-02 bake oven zone 1 | 0.048 lb NOx/MMBtu | 0.0075 lb PM/MMBtu Natural gas only |
| FAC-36, FAC-39, FAC-40, FAC-53 through FAC-80, FAC-110, FAC-117 through FAC-139, FAC-148 through FAC-169, 3 regenerative thermal oxidizers | 0.10 lb NOx/MMBtu | 0.0075 lb PM/MMBtu Natural gas only |

(c) Pursuant to 326 IAC 2-2-3, low NOx burners shall be installed, maintained, and operated on the above combustion sources in (a) and (b) of this condition.

D.10.3 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating) the PM emissions from the following facilities shall be limited to 0.38 pound per million British thermal units (lb/mmBtu):

FAC-20, FAC-26 through FAC-30, FAC-32, FAC-35 through FAC-37, FAC-39 through FAC-41, FAC-43 through FAC-80, FAC-117 through, FAC-140, FAC-146 through FAC-169, FAC-110,
PA-05, PA-07, and PO-02 (burners for heated flash areas and bake ovens);
PA-20 (process water heaters) and the café water heaters (FAC-110 and FAC-111).

The limit shall be established using the following equation:

Pt = 1.09/(Q^0.26)

Where: Pt = Pounds of particulate matter emitted per million BTU (lb/MMBtu) heat input
Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr)
Q = 58.3 MMBtu heat input

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

D.10.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-2]

In order to demonstrate compliance with the NOx limits in Condition D.10.2, the Permittee shall conduct performance tests utilizing methods as approved by the Commissioner at least once every two and one half (2.5) years from the date of the most recent valid compliance demonstration for the following emission units:

(a) One RTO
(b) One ASH rated at 17 MMBtu/hr (PO-02); and
(c) One (1) of the following ASH units:
  (1) Basecoat #1 or #2 ASH each, with 8.0 MMBtu/hr (PA-07)

The NOx testing for the RTOs shall be repeated at least once every two and half (2.5) years from the date of the most recent valid compliance demonstration. Testing of the RTOs shall be conducted such that every seven and half (7.5) years each of the three (3) RTOs is tested.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.10.5 Record Keeping Requirements

(a) To document the compliance status with Condition D.10.1, the Permittee shall maintain records of the total natural gas usage from all combustion units in this SECTION.

(b) To document the compliance status with Condition D.10.2, the Permittee shall maintain on file vendors guarantees and/or certifications for NOx emissions, excluding space heaters used for comfort, where guarantees and/or certifications are not readily available.

D.10.6 Reporting Requirements

Report of monthly natural gas usage to document the compliance status with Condition D.10.1 shall be submitted to IDEM, OAQ using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (34).

## SECTION D.11 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]:**

Insignificant Activities:

(a) Painting Operations:

(1) E-Coat sanding and inspection booth, identified as PA-04, using dry filters for particulate control, exhausting to general ventilation.
(2) Primer/Surfacer sanding and inspection booth, identified as PA-06, using dry filters for particulate control, exhausting to general ventilation.

(k) Noncontact cooling tower systems with forced and/or induced draft cooling tower system not regulated under a NESHAP.

(1) One (1) forced draft chiller cooling tower, identified as FAC-105, with a capacity of 20,000 gallons per minute.
(2) One (1) forced draft air compressor cooling tower, identified as FAC-107, with a capacity of 940 gallons per minute.

(o) Paved and unpaved roads and parking lots with public access.

(w) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(1) One (1) tumbleblast unit, identified as PA-15.

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

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

D.11.1 PSD BACT for PM and PM10 [326 IAC 2-2]

(a) Pursuant to 326 IAC 2-2-3, Best Available Control Technology (PSD BACT), the PM and PM10 emissions from each dry filters controlling the E-Coat sanding and inspection booth, identified as PA-04, and Primer/Surfacer sanding and inspection booth, identified as PA-06, shall each be limited to 0.0015 grains per standard cubic foot (gr/scf) of exhaust air and 98.5% control efficiency.

(b) Pursuant to 326 IAC 2-2-3, Best Available Control Technology (PSD BACT), the PM and PM10 emissions from the cartridge filters controlling the tumbleblast unit, identified as PA-15, shall be limited to 0.0032 gr/scf of exhaust air and 0.0045 pounds per hour (lb/hr).

(c) The cooling towers shall be controlled by drift eliminators with 0.002% drift. The Permittee shall submit to IDEM, OAQ design specification of the cooling towers upon initial start up of the cooling towers.

(d) The Permittee shall minimize unpaved roads through ground cover in the form of grass, landscaping to prevent erosion and subsequent deposition of windborne particulate upon the roads. Use water to suppress fugitive dust from paved and unpaved roads when necessary.

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

D.11.2 Record Keeping Requirements

To document the compliance status with Condition D.11.1, the Permittee shall maintain on file vendors guarantees and/or certifications for the dry filters and cartridge filters efficiencies.

## SECTION E.1 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]**

(a) Body Painting Operations:

(1) Electrodeposition (E-Coat) Coating Line, identified as PA-02, with a capacity of 72 units per hour, consisting of the following:

B) One (1) Electrodeposition coating dip tank, rinse stages and E-Coat oven controlled by one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 14 million British thermal units per hour (MMBtu/hr), identified as Body Oven RTO with stack ID 1100.

(C) One (1) E-Coat pre-heat zone, with a maximum heat input capacity of 3.7 MMBtu/hr, exhausting to stack ID 1003.

(D) One (1) natural gas-fired E-coat 5-stage oven tunnel, which consists of five oven zones each with a heat input capacity of 3.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(E) One (1) cooling tunnel, exhausting to stack ID 1006.

Under 40 CFR 60, Subpart MM, this operation is considered a prime coat operation.

(3) Primer/Surfacer Coating Line, identified as PA-05, with a capacity of 80 units per hour, consisting of the following:

(A) One (1) Primer/Surfacer spray coating booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymerl emulsion wash system and dry filters to control particulate overspray, exhausting to stack ID 1014 and stack ID 1015.

(B) One (1) Primer/Surfacer flashoff area, with two (2) natural gas-fired heaters, one with a maximum heat input capacity of 3.5 MMBtu/hr and one with a maximum heat input capacity of 2.6 MMBtu/hr.

(C) One (1) natural gas-fired Primer/Surfacer 4-stage oven tunnel, which consists of four (4) zones, oven zones #1, #2, and #4, each with a heat input capacity of 2.6 MMBtu/hr and oven zone #3 with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(D) One oven exit hood exhaust, exhausting to stack ID 1021.

(E) One (1) cooling tunnel, exhausting to stack ID 1022.

Under 40 CFR 60, Subpart MM, this operation is considered a guide coat operation.

(4) Topcoat Coating Operation, identified as PA-07, with two (2) Topcoat Lines #1 and #2, with a total capacity of 88 units per hour, consisting of the following:

(A) Two (2) basecoat spray booths, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash systems and dry filters to control particulate overspray, exhausting to stack ID 1032 and stack ID 1043.

(B) Two (2) basecoat flashoff areas, each with one (1) natural gas-fired heater, each with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1033 and stack ID 1044.

(C) Two (2) clearcoat spray booths, each approved in 2006 for construction and each approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems. The automatic zones use water/polymer emulsion wash systems to control particulate overspray and the manual zones use dry filters. The manual zones are cascaded to the automatic zones, and the automatic zones are controlled by one (1) RTO, identified as Body Booth RTO with stack ID 1101.

(D) One (1) natural gas-fired Topcoat 4-stage oven tunnel, which consists of four (4) zones, oven zone #1, with a heat input capacity of 3.5 MMBtu/hr, oven zone #2, with a heat input capacity of 2.6 MMBtu/hr, and oven zones #3, and #4, each with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(E) One (1) cooling tunnel, exhausting to stack ID 1041.

(F) One (1) oven exit hood exhaust, exhausting to stack ID 1037.

Under 40 CFR 60, Subpart MM, this operation is considered a Topcoat operation.

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

E.1.1 General Provisions Relating to NSPS MM [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 60, Subpart MM.

E.1.2 Automobiles and Light-Duty Trucks NSPS [40 CFR Part 60, Subpart MM]

The Permittee which engages in automobiles and light duty trucks production shall comply with the provisions of 40 CFR Part 60, Subpart MM, as follows:

40 CFR Part 60.390
40 CFR Part 60.391
40 CFR Part 60.392
40 CFR Part 60.393
40 CFR Part 60.394
40 CFR Part 60.395
40 CFR Part 60.396
40 CFR Part 60.397
40 CFR Part 60.398

## SECTION E.2 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]**

(e) Two (2) diesel fired emergency generators, identified as FAC-84 and FAC-85, each with a rated capacity of 757 HP. Under 40 CFR 60, Subpart IIII, these units are considered model year 2007 stationary internal combustion engines.

(f) One diesel fired back-up generator, identified as FAC-86, with a rated capacity equal to or less than 158 HP. Under 40 CFR 60, Subpart IIII, this unit is considered a model year 2007 stationary internal combustion engine.

Insignificant Activities

(s) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower.

(1) Three (3) emergency generators, identified as FAC-81, FAC-89 and FAC-115, each with a capacity of 133 HP Under 40 CFR 60, Subpart IIII, these units are considered model year 2007 emergency stationary internal combustion engines.

(t) Other emergency equipment as follows: Stationary fire pumps.

(1) Two (2) stationary fire pumps, identified as FAC-82 and FAC-83, each with a rated capacity of 183 HP. Under 40 CFR 60, Subpart IIII, these units are considered model year 2007 fire pump engines.

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

### E.2.1 General Provisions Relating to NSPS IIII [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 60, Subpart IIII.

### E.2.2 Performance Standards for Stationary Compression Ignition Internal Combustion Engines [40 CFR Part 60, Subpart IIII]

Pursuant to 40 CFR Part 60, Subpart IIII, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart IIII, as follows:

40 CFR 60.4200(a)(2)(i), (4)
40 CFR 60.4205(b), (c)
40 CFR 60.4206
40 CFR 60.4207(b)
40 CFR 60.4208
40 CFR 60.4209
40 CFR 60.4211(a), (c)
40 CFR 60.4212
40 CFR 60.4214(b)
40 CFR 60.4218
40 CFR 60.4219
Table 2 to Subpart IIII of Part 60 (the applicable portions)
Table 4 to Subpart IIII of Part 60 (the applicable portions)
Table 8 to Subpart IIII of Part 60 (the applicable portions)

## SECTION E.3 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]**

(t) Emergency generators as follows: Gasoline generators not exceeding 110 horsepower

(1) Two (2) emergency generators, identified as FAC-145 and FAC-175, with a capacity of 5.5 HP each.

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

E.3.1 General Provisions Relating to NSPS JJJJ [326 IAC 12-1] [40 CFR Part 60, Subpart A]

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 60, Subpart JJJJ.

E.3.2 Standard of Performance for Stationary Spark Ignition Internal Combustion Engines [40 CFR Part 60, Subpart JJJJ]

Pursuant to 40 CFR Part 60, Subpart JJJJ, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart JJJJ, as follows**:**

40 CFR Part 60.4230(a)(4)(iii)
40 CFR Part 60.4233(a)
40 CFR Part 60.4234
40 CFR Part 60.4235
40 CFR Part 60.4243(a)(2)(i)
40 CFR Part 60.4244
40 CFR Part 60.4245((a)
40 CFR Part 60.4246
40 CFR Part 60.4248
Table 2 to Subpart JJJJ of Part 60 (applicable portions)
Table 3 to Subpart JJJJ of Part 60 (applicable portions)

## SECTION E.4 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]:**

(a) Body Painting Operations:

(1) Electrodeposition (E-Coat) Coating Line, identified as PA-02, with a capacity of 72 units per hour, consisting of the following:

(A) Multistage pretreatment/Phosphate Process, identified as PA-01 IA.

(B) One (1) Electrodeposition coating dip tank, rinse stages and E-Coat oven controlled by one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 14 million British thermal units per hour (MMBtu/hr), identified as Body Oven RTO with stack ID 1100.

(C) One (1) E-Coat pre-heat zone, with a maximum heat input capacity of 3.7 MMBtu/hr, exhausting to stack ID 1003.

(D) One (1) natural gas-fired E-coat 5-stage oven tunnel, which consists of five (5) oven zones, each with a heat input capacity of 3.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(E) One (1) cooling tunnel, exhausting to stack ID 1006.

(2) Sealer Deadener Coating Line, identified as PA-03, with a capacity of 73 units per hour, consisting of the following:

(A) One (1) automatic and manual sealer deadener application area, and one (1) sound deadener booth, using airless spray application system, exhausting to stack ID 1007.

(3) Primer/Surfacer Coating Line, identified as PA-05, with a capacity of 80 units per hour, consisting of the following:

(A) One (1) Primer/Surfacer spray coating booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system and dry filters to control particulate overspray, exhausting to stack ID 1014 and stack ID 1015.

(B) One (1) Primer/Surfacer flashoff area, with two (2) natural gas-fired heaters, one with a maximum heat input capacity of 3.5 MMBtu/hr and one with a maximum heat input capacity of 2.6 MMBtu/hr.

(C) One (1) natural gas-fired Primer/Surfacer 4-stage oven tunnel, which consists of four (4) zones, oven zones #1, #2, and #4, each with a heat input capacity of 2.6 MMBtu/hr and oven zone #3 with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(D) One (1) oven exit hood exhaust, exhausting to stack ID 1021.

(E) One (1) cooling tunnel, exhausting to stack ID 1022.

(F) Air make-up units as follows:

**SECTION E.4 FACILITY OPERATION CONDITIONS**

(i) One (1) natural gas-fired air makeup unit, for the primer/surfacer line, equipped with a two-stage burner, with a combined maximum heat input capacity of 7.8 MMBtu/hr.

(4) Topcoat Coating Operation, identified as PA-07, with two (2) Topcoat Lines #1 and #2, with a total capacity of 88 units per hour, consisting of the following:

(A) Two (2) basecoat spray booths, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash systems and dry filters to control particulate overspray, exhausting to stack ID 1032 and stack ID 1043.

(B) Two (2) basecoat flashoff areas, each with one (1) natural gas-fired heater, each with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1033 and stack ID 1044.

(C) Two (2) clearcoat spray booths, each approved in 2006 for construction and each approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems. The automatic zones use water/polymer emulsion wash systems to control particulate overspray and the manual zones use dry filters. The manual zones are cascaded to the automatic zones, and the automatic zones are controlled by one (1) RTO, identified as Body Booth RTO with stack ID 1101.

(D) One (1) natural gas-fired Topcoat 5-stage oven tunnel, which consists of five (5) zones, oven zone #1 with a heat input capacity of 3.5 MMBtu/hr, oven zone #2 with a heat input capacity of 2.6 MMBtu/hr and oven zones #3, #4, and #5, each with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 11.

(E) One (1) cooling tunnel, exhausting to stack ID 1041.

(F) One oven exit hood exhaust, exhausting to stack ID 1037.

(G) Topcoat on-line repair, identified as PA-07 which includes:

(i) One (1) repair sanding booth, identified as PA-08 controlled by dust filters, exhausting to stack ID 1056.
(ii) One (1) repair coating booth using water wash system to control particulate overspray, exhausting to stack ID 1057.
(iii) One (1) natural gas-fired repair oven, with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1058.
(iv) One (1) Cooling tunnel, exhausting to stack ID 1060.
(v) One (1) small repair booth, exhausting to stack ID 1055, with infrared curing, consists of three (3) banks and portable infrared lights.

This topcoat on-line repair booth is used before the vehicles are not completely assembled; therefore, under 40 CFR 63, Subpart MMMM, this is considered a new in-line repair operation.

(6) Miscellaneous cleaning and purge operation – paint operations, consisting of the following:

(A) Purge and clean-up solvent usage and recovery system, identified as PA-14, including virgin solvent distribution, day tanks, small portable containers including containers that meet the definition of cold cleaners, and spent solvent recovery.

**SECTION E.4 FACILITY OPERATION CONDITIONS**

(7) Paint effluent system, identified as PA-17, consisting of sludge for separation of paint solids form booth water/polymer emulsion wash systems for body and plastic parts painting. Solids are chemically separated and sent off-site. Water/polymer emulsion is recycled to paint booths or sent to wastewater.

(8) One (1) natural gas-fired air makeup unit with a maximum heat input capacity of 20.0 MMBtu/hr, identified as (Working Area ASH #1, PA-21).

(9) One (1) natural gas-fired air makeup unit with a maximum heat input capacity of 8.0 MMBtu/hr, identified as (Working Area ASH #2, PA-22).

(10) One (1) natural gas -fired makeup unit with a maximum heat input capacity of 5.0 MMBtu/hr, identified as (Working Area ASH #3, PA-23).

(11) One (1) natural gas-fired HVAC units, identified as HVAC ASH #2, PA-25, with a maximum heat input capacity of 13.0 MMBtu/hr.

(12) One (1) natural gas-fired HVAC unit, with a maximum heat input capacity of 8.00 MMBtu/hr, identified as HVAC #3 ASH, PA-26.

(b) Plastics Operations:

(1) Plastic Parts Coating Line, identified as PO-02, with a capacity of 120 hangers per hour, consisting of the following:

(A) Alkaline pretreatment process, identified as PO-01.

(B) One (1) dry-off tunnel, exhausting to stack ID 2000.

(C) One (1) primer spray booth, utilizing High Volume Low Pressure (HVLP) and/or electrostatic application systems, using water/polymer emulsion wash to control particulate overspray, exhausting to stack ID 2002.

(D) One (1) basecoat spray booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system to control particulate overspray. If waterborne basecoat is utilized, the basecoat spray booth will exhaust to stack ID 2003 and stack ID 2004. If solventborne basecoat is utilized, the basecoat spray booth will be controlled by one (1) RTO, identified as Bumper RTO with stack ID 2029.

(E) One (1) clearcoat spray booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system to control particulate overspray, and VOC emissions controlled by one (1) RTO, with a maximum heat input capacity of 14.00 MMBtu/hr, identified as Bumper RTO, with stack ID 2029.

(F) One (1) clearcoat flashoff area.

(G) One (1) plastic parts oven tunnel which consists of two (2) zones, Topcoat Oven Zone #1 and Topcoat Oven Zone #2 each zone with a maximum heat input capacity of 2.6 MMBtu/hr burner controlled by one (1) RTO, identified as Bumper RTO with stack ID 2029.

**SECTION E.4 FACILITY OPERATION CONDITIONS**

(H) One (1) natural gas-fired air makeup unit, equipped with a two-stage burner, with a combined maximum heat input capacity of 19.0 MMBtu/hr.

(2) Miscellaneous cleaning and purge operation – plastics painting, consisting of the following:

(A) Purge and clean-up solvent usage and recovery system, identified as PO-05, including virgin solvent distribution, day tanks, small portable containers including containers that meet the definition of cold cleaners, and spent solvent recovery.

(5) One (1) Plastic parts touchup booth, identified as PO-17, using dry filters for particulate control and manual application systems.

(6) Two (2) painted/raw plastic parts regrind machines, identified as PO-15 and PO-16.

(7) Two (2) plastic flash torches, with a maximum heat input capacity of 0.10 MMBtu/hr each, identified as PO-14 and PO-19.

(c) Final Assembly Operations:

(1) Assembly window install and miscellaneous operations, identified as AF-01, with a capacity of 70 units per hour, consisting of all coatings, sealers, lubricants and related cleaning solvents used for auto assembly, including processes used to install window glass in vehicles, including body primer, glass cleaner, glass primer, and glass adhesive. Includes robotic and manual application equipment, coating delivery/circulation systems and raw material storage containers. Under 40 CFR 63, Subpart MMMM, this is considered a new affected source.

(d) Weld sealer process using manual and robotic weld sealer application equipment, material delivery systems and raw material storage, identified as WE-01.

Insignificant Activities:

(a) Painting Operations:

(3) Topcoat in-line repair, which includes repair area for small interior topcoat, imperfections, manual application equipment, identified as PA-09. Under 40 CFR 63, Subpart MMMM, this is considered a new in-line repair operation.

(7) Final repair, identified as PA-12, which includes repair coating booths and general areas, using manual application systems, and IR curing equipment. Under 40 CFR 63, Subpart MMMM, this is considered a new final repair operation.

(8) Final repair, identified as PA-13, using air dry materials and manual application system. Under 40 CFR 63, Subpart MMMM, this is considered a new final repair operation.

(9) Paint Mix Rooms (Emissions accounted for in the emission determinations at each respective source). All storage containers and mixing vessels associated with affected source are subject to the requirements of 40 CFR 63, Subpart MMMM.

(10) One (1) Plastic parts touchup booth, identified as PO-17, using dry filters for particulate control and manual application systems.

(b) Space heaters, process heaters, or boilers using the following fuels: Natural gas-fired combustion

**SECTION E.4 FACILITY OPERATION CONDITIONS**

sources with heat input equal to or less than ten million (10,000,000) Btu per hour

(3) One (1) natural gas-fired air makeup unit for the Primer/Surfacer sanding and inspection booth (PA-06), with a maximum heat input capacity of 6.4 MMBtu/hr

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

E.4.1 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.4.2 Surface Coating of Plastic Parts and Products NESHAP [40 CFR Part 63, Subpart PPPP]

The Permittee which engages in surface coating of plastic parts and products shall comply with the provisions of 40 CFR Part 63, Subpart IIII, in order to demonstrate compliance with 40 CFR Part 63, Subpart PPPP.

E.4.3 Surface Coating of Miscellaneous Metal Parts and Products NESHAP [40 CFR Part 63, Subpart MMMM]

The Permittee which engages in surface coating of miscellaneous metal parts and products shall comply with the provisions of 40 CFR Part 63, Subpart IIII, in order to demonstrate compliance with 40 CFR Part 63, Subpart MMMM.

E.4.4 Surface Coating of 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:

40 CFR Part 63.3080
40 CFR Part 63.3081
40 CFR Part 63.3082(a), (b), (c), (d), (e)
40 CFR Part 63.3083(a)(2), and (d)
40 CFR Part 63.3090
40 CFR Part 63.3092 through 40 CFR Part 63.3094
40 CFR Part 63.3100
40 CFR Part 63.3101
40 CFR Part 63.3110(a) and (b)
40 CFR Part 63.3120
40 CFR Part 63.3130
40 CFR Part 63.3131
40 CFR Part 63.3150 through 40 CFR Part 63.3152
40 CFR Part 63.3160(a), (c)
40 CFR Part 63.3161
40 CFR Part 63.3162 Reserved
40 CFR Part 63.3163(a), (b), (c), (d) (e), (f), (g), and (h)
40 CFR Part 63.3164 through 40 CFR Part 63.3166
40 CFR Part 63.3167(a) and (f)
40 CFR Part 63.3168(a), (b), (c)(1), (3), and (g)
40 CFR Part 63.3170(a)
40 CFR Part 63.3171
40 CFR Part 63.3172 Reserved
40 CFR Part 63.3173
40 CFR Part 63.3175
40 CFR Part 63.3176

Table 1 to Subpart IIII of Part 63
Table 2 to Subpart IIII of Part 63
Table 3 to Subpart IIII of Part 63
Table 4 to Subpart IIII of Part 63
Appendix A to Subpart IIII of Part 63

## SECTION E.5 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]**

(e) Two (2) diesel fired emergency generators, identified as FAC-84 and FAC-85, each with a rated capacity of 757 HP.

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

### E.5.1 General Provisions Relating to NESHAP ZZZZ [326 IAC 20-1] [40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A- General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 63, Subpart ZZZZ.

### E.5.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR Part 63, Subpart ZZZZ]

Pursuant to 40 CFR Part 63, Subpart ZZZZ, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart ZZZZ, as follows:

40 CFR Part 63.6580
40 CFR Part 63.6585
40 CFR Part 63.6590(2)(i)
40 CFR Part 63.6595(3)
40 CFR Part 63.6605
40 CFR Part 63.6640(f)(i),(ii),(iii)
40 CFR Part 63.6645(f)

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY
# COMPLIANCE AND ENFORCEMENT BRANCH
# PART 70 OPERATING PERMIT
# CERTIFICATION

Source Name: Honda Manufacturing of Indiana, LLC
Source Address: 2755 North Michigan Avenue, Greensburg, Indiana 47240
Part 70 Permit No.: T031-30127-00026

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 AND ENFORCEMENT 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: Honda Manufacturing of Indiana, LLC
Source Address: 2755 North Michigan Avenue, Greensburg, Indiana 47240
Part 70 Permit No.: T031-30127-00026

**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, $SO_2$, VOC, $NO_X$, 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: _____

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY
# COMPLIANCE AND ENFORCEMENT BRANCH
# Part 70 Quarterly Report

Source Name: Honda Manufacturing of Indiana, LLC
Source Address: 2755 North Michigan Avenue, Greensburg, Indiana 47240
Part 70 Permit No.: T031-30127-00026
Facility: Gasoline Storage Tanks (FAC-99 and FAC -100)
Parameter: Gasoline throughput
Limit: Gasoline throughput be limited to 2,250,000 gallon per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____YEAR:_____

| Month | Total Gasoline Throughput This Month (gallons) | Total Gasoline for Past 11 Months (gallons) | Total Gasoline for 12 Month Period (gallons) |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |

Submitted by:_____

Title / Position: _____

Signature:_____

Date: _____

Phone: _____

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

## Part 70 Quarterly Report

| | |
|---|---|
| Source Name: | Honda Manufacturing of Indiana, LLC |
| Source Address: | 2755 North Michigan Avenue, Greensburg, Indiana 47240 |
| Part 70 Permit No.: | T031-30127-00026 |
| Facility: | E-Coat Line (PA-02), Sealer/Deadener (PA-03), Primer/Surfacer (PA-05), Topcoat Coating Line and On-Line Repair (PA-07), Blackout/Cavity Wax Coating Line (PA-11), and Plastic Parts, |
| Parameter: | VOC |
| Limit: | Shall not exceed 330.2 tons VOC per twelve (12) consecutive month period with compliance determined at the end of each month. |

QUARTER: _____YEAR_____

| Month | VOC Emissions This Month (tons) | VOC Emissions for Past 11 Months (tons) | VOC Emissions for 12 Month Period (tons) |
|---|---|---|---|
| Month 1 | | | |
| Month 2 | | | |
| Month 3 | | | |

Submitted by:_____

Title / Position: _____

Signature:_____

Date: _____

Phone: _____

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

## Part 70 Quarterly Report

Source Name: Honda Manufacturing of Indiana, LLC
Source Address: 2755 North Michigan Avenue, Greensburg, Indiana 47240
Part 70 Permit No.: T031-30127-00026
Facility: Natural gas combustion sources in SECTION D.10
Parameter: VOC
Limit: 187.6 pounds of CO per MMCF of natural gas and
976 million cubic feet (1,000,000 decatherms) of natural gas per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____YEAR:_____

| Month | Natural Gas Usage This Month (MMCF) | Natural Gas Usage for Past 11 Months (MMCF) | Natural Gas Usage for 12 Month Period (MMCF) |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |

Submitted by:_____

Title / Position: _____

Signature:_____

Date: _____

Phone: _____

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

**Quarterly Report**

Source Name: Honda Manufacturing of Indiana, LLC
Source Address: 2755 North Michigan Avenue, Greensburg, Indiana 47240
Part 70 Permit No.: T031-30127-00026
Facility: E-Coat tank, rinse and oven (PA-02), Primer/Surfacer (PA-05), Topcoat coating line and Topcoat on-line repair (PA-07),
Parameter: VOC
Limits: E-Coat tank, rinse, and oven (PA-02) - 0.04 pound per gallon of applied coating solids (lb/gacs
Primer/Surfacer (PA-05) – 4.1 lb/gacs
Topcoat Coating Line and Topcoat On-Line Repair (PA-07) – 5.2 lb/gacs
The VOC limits shall be based on a daily-volume- weighted average of the coatings applied, actual transfer efficiencies, and RTOs for control.

Quarter: _____Year _____

| Day | E-Coat tank, rinse, and oven (PA-02) (lb/gacs) | Primer/Surfacer (PA-05) (lb/gacs) | Topcoat Coating Line and Topcoat On-Line Repair (PA-07) (lb/gacs) | Day | E-Coat tank, rinse, and oven (PA-02) (lb/gacs) | Primer Surfacer (PA-05) (lb/gacs) | Topcoat Coating Line and Topcoat On-Line Repair (PA-07) (lb/gacs) |
|---|---|---|---|---|---|---|---|
| 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 | | | | | | | |

Submitted by: _____Signature:_____

Title/Position: _____Date: : _____

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

Source Name: Honda Manufacturing of Indiana, LLC
Source Address: 2755 North Michigan Avenue, Greensburg, Indiana 47240
Part 70 Permit No.: T031-30127-00026
Facility: Sealer/Deadener (PA-03)
Parameter: VOC
Limits: Sealer/Deadener - 0.30 lb/gallon controlled by RTO

The VOC shall be based on a monthly-volume- weighted average of the coating used with RTO control.

Quarter: _____Year _____

| Month | Sealer/ Deadener Average This Month (lb/gal) | Sealer/ Deadener Average for Past 11 Months (lb/gal) | Sealer/ Deadener Total Average for 12 Month Period (lb/gal) |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |

Submitted by:_____ Date: _____
Title / Position:_____ Phone: _____
Signature:_____

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

**Quarterly Report**

Source Name: Honda Manufacturing of Indiana, LLC
Source Address: 2755 North Michigan Avenue, Greensburg, Indiana 47240
Part 70 Permit No.: T031-30127-00026
Facility: Cavity Wax
Parameter: VOC
Limits: Cavity Wax - 2.9 lb/gallon (uncontrolled)

The VOC limit for the Cavity Wax shall be based on a daily-volume- weighted average of the coating/wax used with no control.

| Day | Cavity Wax Average This Day (lb/gal) | Day | Cavity Wax Wax Average This Day (lb/gal) |
|---|---|---|---|
| 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 | | | |

Submitted by:_____ Date: _____
Title / Position:_____ Phone: _____
Signature:_____

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

## Part 70 Quarterly Report

Source Name: Honda Manufacturing of Indiana, LLC
Source Address: 2755 North Michigan Avenue, Greensburg, Indiana 47240
Part 70 Permit No.: T031-30127-00026
Facility: Plastic Parts Coating Line, identified as PO-02, Instrument Panel, identified as PO-03, Blackout coating - 0.74lb/gallon (uncontrolled)
Parameter: VOC
Limit: Primer coating shall not exceed 0.90 pounds per gallon of coating as applied.
Basecoat coating shall not exceed 1.15 pounds per gallon of coating as applied.
Clearcoat coating shall not exceed 3.25 pounds per gallon of coating as applied.
Instrument Panel, identified as PO-03 shall not exceed 2.3 pounds per gallon less water of coating as applied.
Blackout coating, identified as PA-11 shall not exceed 0.74 lb/gallon as applied

These limits shall be based on a daily volume weighted average of the coatings applied and RTOs for control.

.

QUARTER _____ YEAR _____

| Day | Primer Coating (lb/gal) | Basecoat Coating (lb/gal) | Clearcoat Coating (lb/gal) | Instrument Panel (lb/gal - water) | Black out (lb/gal) | Day | Primer Coating (lb/gal) | Basecoat Coating (lb/gal) | Clearcoat Coating (lb/gal) | Instrument Panel (lb/gal - water) | Black out (lb/gal) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | | | | | | | | | | |

Submitted by:_____ Date: _____
Title / Position:_____ Phone: _____
Signature:_____.

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

Source Name: Honda Manufacturing of Indiana, LLC
Source Address: 2755 North Michigan Avenue, Greensburg, Indiana 47240
Part 70 Permit No.: T031-30127-00026
Facility: Final Repair-Air Dry, identified as PA-13, Topcoat In-Line Repair, identified as PA-09, Final Repair, identified as PA-12
Parameter: VOC
Limits: Final Repair-Air Dry, identified as PA-13 - less than 15 pounds per day (lbs/day).
Topcoat In-Line Repair, identified as PA-09 - less than 15 lbs/day.
Final Repair, identified as PA-12 – 4.8 lb/gallon. This lb/gal limit shall be based on a daily-volume weighted average of the coatings applied.

**Month** _____ **Year** _____

| Day | Final Repair (PA-12) Average VOC Applied (lb/gal) | Final Repair (PA-13) VOC Input Usage (lb/day) | Topcoat In-Line Repair, identified as PA-09 VOC Input Usage (lb/day) | Day | Final Repair, identified as PA-12 VOC of Coatings Applied (lb/gal) | Final Repair (PA-13) VOC Input Usage (lb/day) | Topcoat In-Line Repair, identified as PA-09 VOC Input Usage (lb/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 | | | | | | | |

Submitted by: _____Signature:_____
Title/Position: _____Date: : _____

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

Source Name: Honda Manufacturing of Indiana, LLC
Source Address: 2755 North Michigan Avenue, Greensburg, Indiana 47240
Part 70 Permit No.: T031-30127-00026
Facility: Miscellaneous Operations: Weld Sealer, Assembly Window Install, Wiping/Cleaning and Purge Solvent from Plastic Operation, Wiping/Cleaning and Purge Solvent from Body Painting Operation
Parameter: VOC
Limits: Weld Sealer – 0.30 lb/gallon
Assembly Window Install – 0.40 lb/gallon
The VOC limits shall be based on a monthly-volume- weighted average of the coatings applied.

Quarter: _____Year _____



| Month | Weld Sealer Average VOC of Coatings Applied This Month (lb/gal) | Weld Sealer Average VOC of Coatings Applied for Past 11 Months (lb/gal) | Weld Sealer Average VOC of Coatings Applied for 12 Month Period (lb/gal) | Assembly Window Install Average VOC of Coatings Applied This Month (lb/gal) | Assembly Window Install Average VOC of Coatings Applied for Past 11 Months (lb/gal) | Assembly Window Install Average VOC of Coatings Applied for 12 Months (lb/gal) |
|---|---|---|---|---|---|---|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

DRAFT

Additional Limits: Miscellaneous Operations: Total limit of 134.9 tons per twelve consecutive month period with compliance determined at the end of each month.

| Facility/Operation | VOC Limits (tons/year) |
|---|---|
| Weld Sealer | 3.91 |
| Assembly Window Install | 24.78 |
| Wiping/Cleaning and Purge Solvent from Body Paint Operation | 67.09 |
| Wiping/Cleaning and Purge Solvent from Plastic Operation | 39.12 |
| TOTAL LIMIT | 134.9 |



| Month | Weld Sealer VOC Usage (tons) | Assembly Window Install VOC Usage (tons) | Wiping/ Cleaning and Purge Solvent from Plastic Operation VOC Usage (tons) | Wiping/ Cleaning and Purge Solvent from Body Painting Operation VOC Usage (tons) | **TOTAL VOC USAGE (TONS)** | Weld Sealer VOC Usage (tons) | Window Install VOC Usage (tons) | Wiping/ Cleaning and Purge Solvent from Plastic Operation VOC Usage (tons) | Wiping/ Cleaning and Purge Solvent from Body Painting Operation VOC Usage (tons | **TOTAL VOC USAGE (TONS** | Weld Sealer VOC Usage (tons) | Window Install VOC Usage (tons) | Wiping/ Cleaning and Purge Solvent from Plastic Operation VOC Usage (tons) | Wiping/ Cleaning and Purge Solvent from Body Painting Operation VOC Usage (tons) | **TOTAL VOC USAGE (TONS)** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | This Month | This Month | This Month | This Month | This Month | Previous 11 Months | Previous 11 Months | Previous 11 Months | Previous 11 Months | Previous 11 Months | 12 Months Total | 12 Months Total | 12 Months Total | 12 Months Total | 12 Months Total |
| 1 | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | |

Submitted by: _____Signature:_____

Submitted by: _____Signature:_____

Title/Position: _____Date: : _____

DRAFT

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
# OFFICE OF AIR QUALITY
# COMPLIANCE AND ENFORCEMENT BRANCH
# PART 70 OPERATING PERMIT
# QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Honda Manufacturing of Indiana, LLC
Source Address: 2755 North Michigan Avenue, Greensburg, Indiana 47240
Part 70 Permit No.: T031-30127-00026

Months: _ to _____ Year: _____



| | |
|---|---|
| This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements of this permit, 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". | |
| ☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD. | |
| ☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD | |
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |

| | |
|---|---|
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |
| **Permit Requirement** (specify permit condition #) | |
| **Date of Deviation:** | **Duration of Deviation:** |
| **Number of Deviations:** | |
| **Probable Cause of Deviation:** | |
| **Response Steps Taken:** | |

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

**ATTACHMENT A**

**Title 40: Protection of Environment**
**PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES**

**Subpart MM—Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations**
**Source:** 45 FR 85415, Dec. 24, 1980, unless otherwise noted.

**§ 60.390 Applicability and designation of affected facility.**

(a) The provisions of this subpart apply to the following affected facilities in an automobile or light-duty truck assembly plant: each prime coat operation, each guide coat operation, and each topcoat operation.
(b) Exempted from the provisions of this subpart are operations used to coat plastic body components or all-plastic automobile or light-duty truck bodies on separate coating lines. The attachment of plastic body parts to a metal body before the body is coated does not cause the metal body coating operation to be exempted.
(c) The provisions of this subpart apply to any affected facility identified in paragraph (a) of this section that begins construction, reconstruction, or modification after October 5, 1979.

**§ 60.391 Definitions.**

(a) All terms used in this subpart that are not defined below have the meaning given to them in the Act and in subpart A of this part.
*Applied coating solids* means the volume of dried or cured coating solids which is deposited and remains on the surface of the automobile or light-duty truck body.
*Automobile* means a motor vehicle capable of carrying no more than 12 passengers.
*Automobile and light-duty truck body* means the exterior surface of an automobile or light-duty truck including hoods, fenders, cargo boxes, doors, and grill opening panels.
*Bake oven* means a device that uses heat to dry or cure coatings.
*Electrodeposition (EDP)* means a method of applying a prime coat by which the automobile or light-duty truck body is submerged in a tank filled with coating material and an electrical field is used to effect the deposition of the coating material on the body.
*Electrostatic spray application* means a spray application method that uses an electrical potential to increase the transfer efficiency of the coating solids. Electrostatic spray application can be used for prime coat, guide coat, or topcoat operations.
*Flash-off area* means the structure on automobile and light-duty truck assembly lines between the coating application system (dip tank or spray booth) and the bake oven.
*Guide coat operation* means the guide coat spray booth, flash-off area and bake oven(s) which are used to apply and dry or cure a surface coating between the prime coat and topcoat operation on the components of automobile and light-duty truck bodies.
*Light-duty truck* means any motor vehicle rated at 3,850 kilograms gross vehicle weight or less, designed mainly to transport property.
*Plastic body* means an automobile or light-duty truck body constructed of synthetic organic material.
*Plastic body component* means any component of an automobile or light-duty truck exterior surface constructed of synthetic organic material.
*Prime coat operation* means the prime coat spray booth or dip tank, flash-off area, and bake oven(s) which are used to apply and dry or cure the initial coating on components of automobile or light-duty truck bodies.
*Purge* or *line purge* means the coating material expelled from the spray system when clearing it.
*Solids Turnover Ratio* ($R_T$) means the ratio of total volume of coating solids that is added to the EDP system in a calendar month divided by the total volume design capacity of the EDP system.
*Solvent-borne* means a coating which contains five percent or less water by weight in its volatile fraction.
*Spray application* means a method of applying coatings by atomizing the coating material and directing the atomized material toward the part to be coated. Spray applications can be used for prime coat, guide coat, and topcoat operations.
*Spray booth* means a structure housing automatic or manual spray application equipment where prime coat, guide coat, or topcoat is applied to components of automobile or light-duty truck bodies.

*Surface coating operation* means any prime coat, guide coat, or topcoat operation on an automobile or light-duty truck surface coating line.
*Topcoat operation* means the topcoat spray booth, flash-off area, and bake oven(s) which are used to apply and dry or cure the final coating(s) on components of automobile and light-duty truck bodies.
*Transfer efficiency* means the ratio of the amount of coating solids transferred onto the surface of a part or product to the total amount of coating solids used.
*VOC content* means all volatile organic compounds that are in a coating expressed as kilograms of VOC per liter of coating solids.
*Volume Design Capacity of EDP System (LE)* means the total liquid volume that is contained in the EDP system (tank, pumps, recirculating lines, filters, etc.) at its designed liquid operating level.
*Waterborne* or *water reducible* means a coating which contains more than five weight percent water in its volatile fraction.
(b) The nomenclature used in this subpart has the following meanings:
$C_{aj}$=concentration of VOC (as carbon) in the effluent gas flowing through stack (j) leaving the control device (parts per million by volume),
$C_{bi}$=concentration of VOC (as carbon) in the effluent gas flowing through stack (i) entering the control device (parts per million by volume),
$C_{fk}$=concentration of VOC (as carbon) in the effluent gas flowing through exhaust stack (k) not entering the control device (parts per million by volume),
$D_{ci}$=density of each coating (i) as received (kilograms per liter),
$D_{dj}$=density of each type VOC dilution solvent (j) added to the coatings, as received (kilograms per liter),
$D_r$=density of VOC recovered from an affected facility (kilograms per liter),
E=VOC destruction or removal efficiency of the control device,
F=fraction of total VOC which is emitted by an affected facility that enters the control device,
G=volume weighted average mass of VOC per volume of applied solids (kilograms per liter),
$L_{ci}$=volume of each coating (i) consumed, as received (liters),
$L_{cil}$= Volume of each coating (i) consumed by each application method (l), as received (liters),
$L_{dj}$=volume of each type VOC dilution solvent (j) added to the coatings, as received (liters),
$L_r$=volume of VOC recovered from an affected facility (liters),
$L_s$=volume of solids in coatings consumed (liters),
$L_E$=the total volume of the EDP system (liters),
$M_d$=total mass of VOC in dilution solvent (kilograms),
$M_0$=total mass of VOC in coatings as received (kilograms),
$M_r$=total mass of VOC recovered from an affected facility (kilograms),
N=volume weighted average mass of VOC per volume of applied coating solids after the control device

$$\frac{kilograms\ of\ VOC}{liter\ of\ applied\ solids},$$

$Q_{aj}$=volumetric flow rate of the effluent gas flowing through stack (j) leaving the control device (dry standard cubic meters per hour),
$Q_{bi}$=volumetric flow rate of the effluent gas flowing through stack (i) entering the control device (dry standard cubic meters per hour),
$Q_{fk}$=volumetric flow rate of the effluent gas flowing through exhaust stack (k) not entering the control device (dry standard cubic meters per hour),
T=overall transfer efficiency,
$T_l$=transfer efficiency for application method ( *l* ),
$V_{si}$=proportion of solids by volume in each coating (i) as received

$$\frac{liter\ solids}{liter\ coating}, and$$

$W_{oi}$=proportion of VOC by weight in each coating (i), as received

$$\frac{\text{kilograms VOC}}{\text{kilograms coating}}$$

[45 FR 85415, Dec. 24, 1980, as amended at 59 FR 51386, Oct. 11, 1994; 65 FR 61760, Oct. 17, 2000]

**§ 60.392 Standards for volatile organic compounds**

On and after the date on which the initial performance test required by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility VOC emissions in excess of:
(a) Prime Coat Operation. (1) For each EDP prime coat operation:
(i) 0.17 kilogram of VOC per liter of applied coating solids when $R_T$ is 0.16 or greater.
(ii) 0.17×350 ($^{0.160-R}{}_{T}$) kg of VOC per liter of applied coating solids when $R_T$ is greater than or equal to 0.040 and less than 0.160.
(iii) When $R_T$ is less than 0.040, there is no emission limit.
(2) For each nonelectrodeposition prime coat operation: 0.17 kilogram of VOC per liter of applied coating solids.
(b) 1.40 kilograms of VOC per liter of applied coating solids from each guide coat operation.
(c) 1.47 kilograms of VOC per liter of applied coating solids from each topcoat operation.
[45 FR 85415, Dec. 24, 1980, as amended at 59 FR 51386, Oct. 11, 1994]

**§ 60.393 Performance test and compliance provisions.**

(a) Section 60.8 (d) and (f) do not apply to the performance test procedures required by this section.
(b) The owner or operator of an affected facility shall conduct an initial performance test in accordance with §60.8(a) and thereafter for each calendar month for each affected facility according to the procedures in this section.
(c) The owner or operator shall use the following procedures for determining the monthly volume weighted average mass of VOC emitted per volume of applied coating solids.
(1) The owner or operator shall use the following procedures for each affected facility which does not use a capture system and a control device to comply with the applicable emission limit specified under §60.392.
(i) Calculate the volume weighted average mass of VOC per volume of applied coating solids for each calendar month for each affected facility. The owner or operator shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or from data determined by an analysis of each coating, as received, by Method 24. The Administrator may require the owner or operator who uses formulation data supplied by the manufacturer of the coating to determine data used in the calculation of the VOC content of coatings by Method 24 or an equivalent or alternative method. The owner or operator shall determine from company records on a monthly basis the volume of coating consumed, as received, and the mass of solvent used for thinning purposes. The volume weighted average of the total mass of VOC per volume of coating solids used each calendar month will be determined by the following procedures.
(A) Calculate the mass of VOC used in each calendar month for each affected facility by the following equation where “n” is the total number of coatings used and “m” is the total number of VOC solvents used:

$$M_o + M_d = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi} + \sum_{j=1}^{m} L_{dj} D_{dj}$$

[$\Sigma L_{dj} D_{dj}$ will be zero if no VOC solvent is added to the coatings, as received].
(B) Calculate the total volume of coating solids used in each calendar month for each affected facility by the following equation where “n” is the total number of coatings used:

$$L_s = \sum_{i=1}^{n} L_{ci} V_{si}$$

(C) Select the appropriate transfer efficiency (T) from the following tables for each surface coating operation:

| **Application method** | **Transfer efficiency** |
|---|---|
| Air Atomized Spray (waterborne coating) | 0.39 |
| Air Atomized Spray (solvent-borne coating) | 0.50 |
| Manual Electrostatic Spray | 0.75 |
| Automatic Electrostatic Spray | 0.95 |
| Electrodeposition | 1.00 |

The values in the table above represent an overall system efficiency which includes a total capture of purge. If a spray system uses line purging after each vehicle and does not collect any of the purge material, the following table shall be used:

| **Application method** | **Transfer efficiency** |
|---|---|
| Air Atomized Spray (waterborne coating) | 0.30 |
| Air Atomized Spray (solvent-borne coating) | 0.40 |
| Manual Electrostatic Spray | 0.62 |
| Automatic Electrostatic Spray | 0.75 |

If the owner or operator can justify to the Administrator's satisfaction that other values for transfer efficiencies are appropriate, the Administrator will approve their use on a case-by-case basis.

( *1* ) When more than one application method ( *I* ) is used on an individual surface coating operation, the owner or operator shall perform an analysis to determine an average transfer efficiency by the following equation where “n” is the total number of coatings used and “p” is the total number of application methods:

$$T = \frac{\sum_{i=1}^{n} T_i V_{si} L_{ci}}{\sum_{i=1}^{p} L_s}$$

(D) Calculate the volume weighted average mass of VOC per volume of applied coating solids (G) during each calendar month for each affected facility by the following equation:

$$G = \frac{M_o + M_d}{L_s T}$$

(E) For each EDP prime coat operation, calculate the turnover ratio ($R_T$) by the following equation:

$$R_T = \frac{L_S}{L_E}, \text{ truncated after 3 decimal places.}$$

Then calculate or select the appropriate limit according to §60.392(a).

(ii) If the volume weighted average mass of VOC per volume of applied coating solids (G), calculated on a calendar month basis, is less than or equal to the applicable emission limit specified in §60.392, the affected facility is in compliance. Each monthly calculation is a performance test for the purpose of this subpart.

(2) The owner or operator shall use the following procedures for each affected facility which uses a capture system and a control device that destroys VOC (e.g., incinerator) to comply with the applicable emission limit specified under §60.392.

(i) Calculate the volume weighted average mass of VOC per volume of applied coating solids (G) during each

calendar month for each affected facility as described under §60.393(c)(1)(i).
(ii) Calculate the volume weighted average mass of VOC per volume of applied solids emitted after the control device, by the following equation: N=G[1–FE]
(A) Determine the fraction of total VOC which is emitted by an affected facility that enters the control device by using the following equation where “n” is the total number of stacks entering the control device and “p” is the total number of stacks not connected to the control device:

$$\sum_{i=1}^{n}$$

If the owner can justify to the Administrator's satisfaction that another method will give comparable results, the Administrator will approve its use on a case-by-case basis.
( *1* ) In subsequent months, the owner or operator shall use the most recently determined capture fraction for the performance test.
(B) Determines the destruction efficiency of the control device using values of the volumetric flow rate of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by the following equation where “n” is the total number of stacks entering the control device and “m” is the total number of stacks leaving the control device:

$$E=\frac{\sum_{i=1}^{n} Q_{bi}\ C_{bi} - \sum_{j=1}^{m} Q_{aj}\ C_{aj}}{\sum_{i=1}^{n} Q_{bi}\ C_{bi}}$$

( *1* ) In subsequent months, the owner or operator shall use the most recently determined VOC destruction efficiency for the performance test.
(C) If an emission control device controls the emissions from more than one affected facility, the owner or operator shall measure the VOC concentration ($C_{bi}$) in the effluent gas entering the control device (in parts per million by volume) and the volumetric flow rate ($Q_{bi}$) of the effluent gas (in dry standard cubic meters per hour) entering the device through each stack. The destruction or removal efficiency determined using these data shall be applied to each affected facility served by the control device.
(iii) If the volume weighted average mass of VOC per volume of applied solids emitted after the control device (N) calculated on a calendar month basis is less than or equal to the applicable emission limit specified in §60.392, the affected facility is in compliance. Each monthly calculation is a performance test for the purposes of this subpart.
(3) The owner or operator shall use the following procedures for each affected facility which uses a capture system and a control device that recovers the VOC (e.g., carbon adsorber) to comply with the applicable emission limit specified under §60.392.
(i) Calculate the mass of VOC ($M_o$+$M_d$) used during each calendar month for each affected facility as described under §60.393(c)(1)(i).
(ii) Calculate the total volume of coating solids ($L_s$) used in each calendar month for each affected facility as described under §60.393(c)(1)(i).
(iii) Calculate the mass of VOC recovered ($M_r$) each calendar month for each affected facility by the following equation: $M_r$=$L_r D_r$
(iv) Calculate the volume weighted average mass of VOC per volume of applied coating solids emitted after the control device during a calendar month by the following equation:

$$N=\frac{M_o+M_d-M_r}{L_s T}$$

(v) If the volume weighted average mass of VOC per volume of applied solids emitted after the control device (N) calculated on a calendar month basis is less than or equal to the applicable emission limit specified in §60.392, the affected facility is in compliance. Each monthly calculation is a performance test for the purposes of this subpart.
[45 FR 85415, Dec. 24, 1980, as amended at 59 FR 51387, Oct. 11, 1994; 65 FR 61760, Oct. 17, 2000]

**§ 60.394 Monitoring of emissions and operations.**

The owner or operator of an affected facility which uses an incinerator to comply with the emission limits specified under §60.392 shall install, calibrate, maintain, and operate temperature measurement devices as prescribed below:
(a) Where thermal incineration is used, a temperature measurement device shall be installed in the firebox. Where catalytic incineration is used, a temperature measurement device shall be installed in the gas stream immediately before and after the catalyst bed.
(b) Each temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±5 percent of the temperature being measured expressed in degrees Celsius or ±2.5 °C.
(c) Each temperature measurement device shall be equipped with a recording device so that a permanent record is produced.

**§ 60.395 Reporting and recordkeeping requirements.**

(a) Each owner or operator of an affected facility shall include the data outlined in paragraphs (a)(1) and (2) in the initial compliance report required by §60.8.
(1) The owner or operator shall report the volume weighted average mass of VOC per volume of applied coating solids for each affected facility.
(2) Where compliance is achieved through the use of incineration, the owner or operator shall include the following additional data in the control device initial performance test requried by §60.8(a) or subsequent performance tests at which destruction efficiency is determined: the combustion temperature (or the gas temperature upstream and downstream of the catalyst bed), the total mass of VOC per volume of applied coating solids before and after the incinerator, capture efficiency, the destruction efficiency of the incinerator used to attain compliance with the applicable emission limit specified in §60.392 and a description of the method used to establish the fraction of VOC captured and sent to the control device.
(b) Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit a written report to the Administrator every calendar quarter of each instance in which the volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under §60.392. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually. Where compliance is achieved through the use of a capture system and control device, the volume-weighted average after the control device should be reported.
(c) Where compliance with §60.392 is achieved through the use of incineration, the owner or operator shall continuously record the incinerator combustion temperature during coating operations for thermal incineration or the gas temperature upstream and downstream of the incinerator catalyst bed during coating operations for catalytic incineration. The owner or operator shall submit a written report at the frequency specified in §60.7(c) and as defined below.
(1) For thermal incinerators, every three-hour period shall be reported during which the average temperature measured is more than 28 °C less than the average temperature during the most recent control device performance test at which the destruction efficiency was determined as specified under §60.393.
(2) For catalytic incinerators, every three-hour period shall be reported during which the average temperature immediately before the catalyst bed, when the coating system is operational, is more than 28 °C less than the average temperature immediately before the catalyst bed during the most recent control device performance test at which destruction efficiency was determined as specified under §60.393. In addition, every three-hour period shall be reported each quarter during which the average temperature difference across the catalyst bed when the coating system is operational is less than 80 percent of the average temperature difference of the device during the most recent control device performance test at which destruction efficiency was determined as specified under §60.393.
(3) For thermal and catalytic incinerators, if no such periods occur, the owner or operator shall submit a negative report.
(d) The owner or operator shall notify the Administrator 30 days in advance of any test by Method 25.

[45 FR 85415, Dec. 24, 1980, as amended at 55 FR 51383, Dec. 13, 1990; 65 FR 61760, Oct. 17, 2000]

**§ 60.396 Reference methods and procedures.**

(a) The reference methods in appendix A to this part, except as provided in §60.8 shall be used to conduct performance tests.
(1) Method 24 or an equivalent or alternative method approved by the Administrator shall be used for the determination of the data used in the calculation of the VOC content of the coatings used for each affected facility. Manufacturers' formulation data is approved by the Administrator as an alternative method to Method 24. In the event of dispute, Method 24 shall be the referee method.
(2) Method 25 or an equivalent or alternative method approved by the Administrator shall be used for the determination of the VOC concentration in the effluent gas entering and leaving the emission control device for each stack equipped with an emission control device and in the effluent gas leaving each stack not equipped with a control device.
(3) The following methods shall be used to determine the volumetric flow rate in the effluent gas in a stack:
(i) Method 1 for sample and velocity traverses,
(ii) Method 2 for velocity and volumetric flow rate,
(iii) Method 3 for gas analysis, and
(iv) Method 4 for stack gas moisture.
(b) For Method 24, the coating sample must be a 1-liter sample taken in a 1-liter container.
(c) For Method 25, the sampling time for each of three runs must be at least one hour. The minimum sample volume must be 0.003 dscm except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator. The Administrator will approve the sampling of representative stacks on a case-by-case basis if the owner or operator can demonstrate to the satisfaction of the Administrator that the testing of representative stacks would yield results comparable to those that would be obtained by testing all stacks.
[45 FR 85415, Dec. 24, 1980, as amended at 65 FR 61760, Oct. 17, 2000]

**§ 60.397 Modifications.**

The following physical or operational changes are not, by themselves, considered modifications of existing facilities:
(a) Changes as a result of model year changeovers or switches to larger cars.
(b) Changes in the application of the coatings to increase coating film thickness.

**§ 60.398 Innovative technology waivers.**

(a) *General Motors Corporation, Wentzville, Missouri, automobile assembly plant.* (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at General Motors Corporation automobile assembly plant located in Wentzville, Missouri, shall comply with the following conditions:
(i) The General Motors Corporation shall obtain the necessary permits as required by section 173 of the Clean Air Act, as amended August 1977, to operate the Wentzville assembly plant.
(ii) Commencing on February 4, 1983, and continuing to December 31, 1986, or until the base coat/clear coat topcoat system that can achieve the standard specified in 40 CFR 60.392(c) (Dec. 24, 1980) is demonstrated to the Administrator's satisfaction the General Motors Corporation shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Wentzville, Missouri, assembly plant, to either:
(A) 1.9 kilograms of VOC per liter of applied coating solids from base coat/clear coat topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or
(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.
(iii) Commencing on the day after the expiration of the period described in paragraph (a)(1)(ii) of this section, and continuing thereafter, emissions of VOC from each topcoat operations shall not exceed 1.47 kilograms of VOC per

liter of applied coating solids as specified in 40 CFR 60.392(c) (Dec. 24, 1980).
(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for base coat/clear coat coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits in paragraph (a)(1)(ii)(A) of this section.
(v) A technology development report shall be sent to EPA Region VII, 324 East 11th Street, Kansas City, MO 64106, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. The technology development report shall summarize the base coat/clear coat development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of 40 CFR 60.392(c) (Dec. 24, 1980) based on the most current information.
(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for General Motors Corporation to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the General Motors Corporation to enforcement under section 113 (b) and (c), 42 U.S.C. 7412 (b) and (c), and section 120, 42 U.S.C. 7420, of the Act as well as possible citizen enforcement under section 304 of the Act, 42 U.S.C. 7604.
(b) *General Motors Corporation, Detroit, Michigan, Automobile Assembly plant.* (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at General Motors Corporation's automobile assembly plant located in Detroit, MI, shall comply with the following conditions:
(i) The General Motors Corporation shall obtain the necessary permits as required by section 173 of the Clean Air Act, as amended August 1977, to operate the Detroit assembly plant.
(ii) Commencing on February 4, 1983, and continuing to December 31, 1986, or until the base coat/clear coat topcoat system that can achieve the standard specified in 40 CFR 60.392(c) (Dec. 24, 1980), is demonstrated to the Administrator's satisfaction, the General Motors Corporation shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Detroit, MI, assembly plant, to either:
(A) 1.9 kilograms of VOC per liter of applied coating solids from base coat/clear coat topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or
(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.
(iii) Commencing on the day after the expiration of the period described in paragraph (b)(ii) of this section, and continuing thereafter, emissions of VOC from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified in 40 CFR 60.392(c) (December 24, 1980).
(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for base coat/clear coat coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits in paragraph (b)(1)(ii)(A) of this section.
(v) A technology development report shall be sent to EPA Region V, 230 South Dearborn Street, Chicago, IL 60604, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. The technology development report shall summarize the base coat/clear coat development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of 40 CFR 60.392(c) (Dec. 24, 1980) based on the most current information.
(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for General Motors Corporation to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the General Motors Corporation to enforcement under section 113 (b) and (c), 42 U.S.C. 7412 (b) and (c), and section 120, 42 U.S.C. 7420, of the Act as well as possible citizen enforcement under section 304 of the Act, 42 U.S.C. 7604.
(c) *General Motors Corporation, Orion Township, MI, automobile assembly plant.* (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at General Motors Corporation automobile assembly plant located in Orion Township, MI, shall comply with the following conditions:
(i) The General Motors Corporation shall obtain the necessary permits as required by section 173 of the Clean Air Act, as amended August 1977, to operate the Orion Township assembly plant.
(ii) Commencing on February 4, 1983, and continuing to December 31, 1986, or until the base coat/clear coat topcoat system that can achieve the standard specified in 40 CFR 60.392(c) (Dec. 24, 1980) is demonstrated to the Administrator's satisfaction, the General Motors Corporation shall limit the discharge of VOC emissions to the

atmosphere from each topcoat operation at the Orion Township, MI, assembly plant, to either:
(A) 1.9 kilograms of VOC per liter of applied coating solids from base coat/clear coat topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or
(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.
(iii) Commencing on the day after the expiration of the period described in paragraph (c)(l)(ii) of this section and continuing thereafter, emissions of VOC from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified in 40 CFR 60.392(c) (Dec. 24, 1980).
(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for base coat/clear coat coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits in paragraph (c)(l) (ii)(A) of this section.
(v) A technology development report shall be sent to EPA Region V, 230 South Dearborn Street, Chicago, IL 60604, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. The technology development report shall summarize the base coat/clear coat development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of 40 CFR 60.392(c) (December 24, 1980) based on the most current information.
(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for General Motors Corporation to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the General Motors Corporation to enforcement under section 113 (b) and (c), 42 U.S.C. 7412 (b) and (c), and section 120, 42 U.S.C. 7420, of the Act as well as possible citizen enforcement under section 304 of the Act, 42 U.S.C. 7604.
(d) *Honda of America Manufacturing, Incorporated (Honda), Marysville, Ohio, automobile assembly plant.* (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at Honda's automobile assembly plant located in Marysville, OH, shall comply with the following conditions:
(i) Honda shall obtain the necessary permits as required by section 173 of the Clean Air Act, as amended August 1977, to operate the Marysville assembly plant.
(ii) Commencing on February 4, 1983, and continuing for 4 years or to December 31, 1986, whichever is sooner, or until the base coat/clear coat topcoat system that can achieve the standard specified in 40 CFR 60.392(c) (Dec. 24, 1980) is demonstrated to the Administrator's satisfaction, Honda shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at Marysville, OH, assembly plant, to either:
(A) 3.1 kilograms of VOC per liter of applied coating solids from base coat/clear coat topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or
(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.
(iii) Commencing on the day after the expiration of the period described in paragraph (d)(1)(ii) of this section and continuing thereafter, emissions of VOC from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified in 40 CFR 60.392(c) (December 24, 1980).
(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for base coat/clear coat coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits in paragraph (d)(1)(ii)(A) of this section.
(v) A technology development report shall be sent to EPA Region V, 230 South Dearborn Street, Chicago, IL 60604, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. The technology development report shall summarize the base coat/clear coat development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of 40 CFR 60.392(c) (Dec. 24, 1980) based on the most current information.
(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for Honda to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject Honda to enforcement under section 113(b) and (c), 42 U.S.C. 7412(b) and (c), and section 120, 42 U.S.C. 7420, of the Act as well as possible citizen enforcement under section 304 of the Act, 42 U.S.C. 7604.
(e) *Nissan Motor Manufacturing Corporation, U.S.A. (Nissan), Smyrna, TN, light-duty truck assembly plant.* (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at Nissan's light-duty truck

assembly plant located in Smyrna, Tennessee, shall comply with the following conditions:
(i) Nissan shall obtain the necessary permits as required by section 173 of the Clean Air Act, as amended August 1977, to operate the Smyrna assembly plant.
(ii) Commencing on February 4, 1983, and continuing for 4 years or to December 31, 1986, whichever is sooner, or until the base coat/clear coat topcoat system that can achieve the standard specified in 40 CFR 60.392(c) (Dec. 24, 1980), is demonstrated to the Administrator's satisfaction, Nissan shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Smyrna, TN, assembly plant, to either:
(A) 2.3 kilograms of VOC per liter of applied coating solids from base coat/clear coat topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or
(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.
(iii) Commencing on the day after the expiration of the period described in paragraph (e)(1)(ii) of this section and continuing thereafter, emissions of VOC from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified in 40 CFR 60.392(c) (Dec. 24, 1980).
Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for base coat/clear coat coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits in paragraph (e)(1)(ii)(A) of this section.
(f) *Chrysler Corporation, Sterling Heights, MI, automobile assembly plant.* (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at Chrysler Corporation's automobile assembly plant located in Sterling Heights, MI, shall comply with the following conditions:
(i) The Chrysler Corporation shall obtain the necessary permits as required under Parts C and D of the Clean Air Act, as amended August 1977, to operate the Sterling Heights assembly plant.
(ii) Commencing on September 9, 1985, and continuing to December 31, 1986, or until the basecoat/clearcoat (BC/CC) topcoat system that can achieve the standard specified under §60.392(c) of this subpart is demonstrated to the Administrator's satisfaction, whichever is sooner, the Chrysler Corporation shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Sterling Heights, MI assembly plant, to either:
(A) 1.7 kilograms of VOC per liter of applied coating solids from BC/CC topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or
(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.
(iii) Commencing on the day after the expiration of the period described in paragraph (f)(1)(ii) and continuing thereafter, emissions of VOC's from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified under §60.392(c) of this subpart.
(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for BC/CC coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits specified under paragraph (f)(1)(ii)(A) of this section.
(v) A technology development report shall be sent to EPA Region V, 230 South Dearborn Street, Chicago, IL 60604, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. A copy of this report shall be sent to Director, Emission Standards and Engineering Division, U.S. Environmental Protection Agency, MD–13, Research Triangle Park, NC 27711. The technology development report shall summarize the BC/CC development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of §60.392(c) of this subpart, based on the most current information.
(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for the Chrysler Corporation to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the Chrysler Corporation to enforcement under sections 113 (b) and (c) of the Act (42 U.S.C. 7412 (b) and (c)) and under section 120 of the Act (42 U.S.C. 7420), as well as possible citizen enforcement under section 304 of the Act (42 U.S.C. 7604).
(3) This waiver shall not be construed to constrain the State of Michigan from imposing upon the Chrysler Corporation any emission reduction requirement at Chrysler's Sterling Heights automobile assembly plant necessary for the maintenance of reasonable further progress or the attainment of the national ambient air quality standard for ozone or the maintenance of the national ambient air quality standard for ozone. Furthermore, this waiver shall not

be construed as granting any exemptions from the applicability, enforcement, or other provisions of any other standards that apply or may apply to topcoat operations or any other operations at this automobile assembly plant.
(g) *Ford Motor Company, Hapeville, GA, automotive assemply plant.* (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at Ford Motor Company's automobile assembly plant located in Hapeville, GA, shall comply with the following conditions:
(i) The Ford Motor Company shall obtain the necessary permits as required under parts C and D of the Clean Air Act, as amended August 1977, to operate the Hapeville assembly plant.
(ii) Commencing on September 9, 1985, and continuing to December 31, 1986, or until the basecoat/clearcoat (BC/CC) topcoat system that can achieve the standard specified under §60.392(c) of this subpart is demonstrated to the Administrator's satisfaction, whichever is sooner, the Ford Motor Company shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Hapeville, GA, assembly plant, to either:
(A) 2.6 kilograms of VOC per liter of applied coating solids from BC/CC topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or
(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.
(iii) Commencing on the day after the expiration of the period described in paragraph (g)(1)(ii) and continuing thereafter, emissions of VOC's from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified under §60.392(c) of this subpart.
(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for BC/CC coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits specified under paragraph (g)(1)(ii)(A) of this section.
(v) A technology development report shall be sent to EPA Region IV, 345 Courtland Street, NE., Atlanta, GA 30365, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. A copy of this report shall be sent to Director, Emission Standards and Engineering Division, U.S. Environmental Protection Agency, MD–13, Research Triangle Park, NC 27711. The technology development report shall summarize the BC/CC development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of §60.392(c) of this subpart, based on the most current information.
(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for the Ford Motor Company to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the Ford Motor Company to enforcement under section 113 (b) and (c) and the Act (42 U.S.C. 7412 (b) and (c)) and under section 120 of the Act (42 U.S.C. 7420), as well as possible citizen enforcement under section 304 of the Act (42 U.S.C. 7604).
(3) This waiver shall not be construed to constrain the State of Georgia from imposing upon the Ford Motor Corporation any emission reduction requirement at Ford's Hapeville automobile assembly plant necessary for the maintenance of reasonable further progress or the attainment of the national ambient air quality standard for ozone or the maintenance of the national ambient air quality standard for ozone. Furthermore, this waiver shall not be construed as granting any exemptions from the applicability, enforcement, or other provisions of any other standards that apply or may apply to topcoat operations or any other operations at this automobile assembly plant.
(h) *Ford Motor Company, St. Paul, MN, light-duty truck assembly plant.* (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at Ford Motor Company's automobile assembly plant located in St. Paul, MN, shall comply with the following conditions:
(i) The Ford Motor Company shall obtain the necessary permits as required under parts C and D of the Clean Air Act, as amended August 1977, to operate the St. Paul assembly plant.
(ii) Commencing on September 9, 1985, and continuing to December 31, 1986, or until the basecoat/clearcoat (BC/CC) topcoat system that can achieve the standard specified under §60.392(c) of this subpart, is demonstrated to the Administrator's satisfaction, whichever is sooner, the Ford Motor Company shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the St. Paul, MN, assembly plant, to either:
(A) 2.0 kilograms of VOC per liter of applied coating solids from BC/CC topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or
(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.

(iii) Commencing on the day after the expiration of the period described in paragraph (h)(1)(ii) and continuing thereafter, emissions of VOC's from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified under §60.392(c) of this subpart.
(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for BC/CC coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits specified under paragraph (h)(1)(ii)(A) of this section.
(v) A technology development report shall be sent to EPA Region V, 230 South Dearborn Street, Chicago, IL 60604, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. A copy of this report shall be sent to Director, Emission Standards and Engineering Division, U.S. Environmental Protection Agency, MD–13, Research Triangle Park, NC 27711. The technology development report shall summarize the BC/CC development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of §60.392(c) of this subpart, based on the most current information.
(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for the Ford Motor Company to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this wavier shall subject the Ford Motor Company to enforcement under section 113 (b) and (c) of the Act (42 U.S.C. 7412 (b) and (c)) and under section 120 of the Act (42 U.S.C. 7420), as well as possible citizen enforcement under section 304 of the Act (42 U.S.C. 7604).
(3) This waiver shall not be construed to constrain the State of Minnesota from imposing upon the Ford Motor Corporation any emission reduction requirements at Ford's St. Paul light-duty truck assembly plant necessary for the maintenance of reasonable further progress or the attainment of the national ambient air quality standard for ozone or the maintenance of the national ambient air quality standard for ozone. Furthermore, this waiver shall not be construed as granting any exemptions from the applicability, enforcement, or other provisions of any other standards that apply or may apply to topcoat operations or any other operations at this light-duty truck assembly plant.
(i) *Ford Motor Company, Hazelwood, MO, passenger van assembly plant.* (1) Pursuant to section 111(j) of the Clean Air Act, 42 U.S.C. 7411(j), each topcoat operation at Ford Motor Company's passenger van assembly plant located in Hazelwood, MO, shall comply with the following conditions:
(i) The Ford Motor Company shall obtain the necessary permits as required under parts C and D of the Clean Air Act, as amended August 1977, to operate the Hazelwood assembly plant.
(ii) Commencing on September 9, 1985, and continuing to December 31, 1986, or until the basecoat/clearcoat (BC/CC) topcoat system that can achieve the standard specified under §60.392(c) of this subpart is demonstrated to the Administrator's satisfaction, whichever is sooner, the Ford Motor Company shall limit the discharge of VOC emissions to the atmosphere from each topcoat operation at the Hazelwood, MO, assembly plant, to either:
(A) 2.5 kilograms of VOC per liter of applied coating solids from BC/CC topcoats, and 1.47 kilograms of VOC per liter of applied coating solids from all other topcoat coatings; or
(B) 1.47 kilograms of VOC per liter of applied coating solids from all topcoat coatings.
(iii) Commencing on the day after the expiration of the period described in paragraph (i)(1)(ii) and continuing thereafter, emissions of VOC's from each topcoat operation shall not exceed 1.47 kilograms of VOC per liter of applied coating solids as specified under §60.392(c) of this subpart.
(iv) Each topcoat operation shall comply with the provisions of §§60.393, 60.394, 60.395, 60.396, and 60.397. Separate calculations shall be made for BC/CC coatings and all other topcoat coatings when necessary to demonstrate compliance with the emission limits specified under paragraph (i)(1)(ii)(A) of this section.
(v) A technology development report shall be sent to EPA Region VII, 726 Minnesota Avenue, Kansas City, KS 61101, postmarked before 60 days after the promulgation of this waiver and annually thereafter while this waiver is in effect. A copy of this report shall be sent to Director, Emission Standards and Engineering Division, U.S. Environmental Protection Agency, MD–13, Research Triangle Park, NC 27711. The technology development report shall summarize the BC/CC development work including the results of exposure and endurance tests of the various coatings being evaluated. The report shall include an updated schedule of attainment of §60.392(c) of this subpart, based on the most current information.
(2) This waiver shall be a federally promulgated standard of performance. As such, it shall be unlawful for the Ford

Motor Company to operate a topcoat operation in violation of the requirements established in this waiver. Violation of the terms and conditions of this waiver shall subject the Ford Motor Company to enforcement under section 113 (b) and (c) of the Act (42 U.S.C. 7412 (b) and (c)) and under section 120 of the Act (42 U.S.C. 7420), as well as possible citizen enforcement under section 304 of the Act (42 U.S.C. 7604).

(3) This waiver shall not be construed to constrain the State of Missouri from imposing upon the Ford Motor Corporation any emission reduction at Ford's Hazelwood passenger van assembly plant necessary for the maintenance of reasonable further progresss or the attainment of the national ambient air quality standards for ozone or the maintenance of the national ambient air quality standard for ozone. Furthermore, this waiver shall not be construed as granting any exemptions from the applicability, enforcement, or other provisions of any other standards that apply or may apply to topcoat operations or any other operations at this passenger van assembly plant.

[48 FR 5454, Feb. 4, 1983, as amended at 50 FR 36834, Sept. 9, 1985]

**ATTACHMENT B**

**Title 40: Protection of Environment**
**Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines**

**Source:** 71 FR 39172, July 11, 2006, unless otherwise noted.

## What This Subpart Covers

### § 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines;

(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

(i) Manufactured after April 1, 2006, and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

## Emission Standards for Manufacturers

### § 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for

new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(3) Their 2013 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year non-emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable, 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the Federal Aid Highway System (FAHS); and

(2) Marine offshore installations.

(g) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37967, June 28, 2011]

**§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) [Reserved]

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

(e) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;

(2) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;

(3) Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and

(4) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(f) Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:

(1) Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and

(2) Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.

(g) Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(1) Areas of Alaska not accessible by the FAHS; and

(2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

**§ 60.4203 How long must my engines meet the emission standards if I am a manufacturer of stationary CI internal combustion engines?**

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the certified emissions life of the engines.

[76 FR 37968, June 28, 2011]

**Emission Standards for Owners and Operators**

**§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(1) For engines installed prior to January 1, 2012, limit the emissions of $NO_X$in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(ii) $45 \cdot n^{-0.2}$g/KW-hr ($34 \cdot n^{-0.2}$g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of $NO_X$in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$g/KW-hr ($33 \cdot n^{-0.23}$g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) For engines installed on or after January 1, 2016, limit the emissions of $NO_X$in the stationary CI internal combustion engine exhaust to the following:

(i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $9.0 \cdot n^{-0.20}$g/KW-hr ($6.7 \cdot n^{-0.20}$g/HP-hr) where n (maximum engine speed) is 130 or more but less than 2,000 rpm; and

(iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.

(4) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

(d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in §60.4212.

(e) Owners and operators of any modified or reconstructed non-emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37968, June 28, 2011]

**§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.

(1) For engines installed prior to January 1, 2012, limit the emissions of $NO_X$in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $45 \cdot n^{-0.2}$g/KW-hr ($34 \cdot n^{-0.2}$g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of $NO_X$in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$g/KW-hr ($33 \cdot n^{-0.23}$g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in §60.4212.

(f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

**§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?**

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.

[76 FR 37969, June 28, 2011]

**Fuel Requirements for Owners and Operators**

**§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?**

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

(c) [Reserved]

(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

**Other Requirements for Owners and Operators**

**§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?**

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

**§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?**

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

**Compliance Requirements**

**§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and (e) and §60.4202(e) and (f) using the certification procedures required in 40 CFR part 94, subpart C, or 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part 94 or 1042, as applicable.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89, 40 CFR part 94 or 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate, but the words “stationary” must be included instead of “nonroad” or “marine” on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR parts 89, 94, 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any

such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words “and stationary” after the word “nonroad” or “marine,” as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as “Fire Pump Applications Only”.

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37969, June 28, 2011]

**§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test

must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and $NO_X$and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit $NO_X$and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(e) or §60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4204(e) or §60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

(f) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37970, June 28, 2011]

**Testing Requirements for Owners and Operators**

**§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?**

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part

1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \qquad \text{(Eq. 1)}$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

**§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?**

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 2)}$$

Where:

$C_i$= concentration of $NO_X$or PM at the control device inlet,

$C_o$= concentration of $NO_X$or PM at the control device outlet, and

R = percent reduction of $NO_X$or PM emissions.

(2) You must normalize the $NO_X$or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen ($O_2$) using Equation 3 of this section, or an equivalent percent carbon dioxide ($CO_2$) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_d \frac{5.9}{20.9 - \%\,O_2} \qquad \text{(Eq. 3)}$$

Where:

$C_{adj}$= Calculated $NO_X$or PM concentration adjusted to 15 percent $O_2$.

$C_d$= Measured concentration of $NO_X$or PM, uncorrected.

5.9 = 20.9 percent $O_2$−15 percent $O_2$, the defined $O_2$correction value, percent.

$\%O_2$= Measured $O_2$concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent $O_2$and $CO_2$concentration is measured in lieu of $O_2$concentration measurement, a $CO_2$correction factor is needed. Calculate the $CO_2$correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific $F_o$value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \qquad \text{(Eq. 4)}$$

Where:

$F_o$= Fuel factor based on the ratio of $O_2$volume to the ultimate $CO_2$volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is $O_2$, percent/100.

$F_d$= Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, $dsm^3$ /J (dscf/$10^6$ Btu).

$F_c$= Ratio of the volume of $CO_2$produced to the gross calorific value of the fuel from Method 19, $dsm^3$ /J (dscf/$10^6$ Btu).

(ii) Calculate the $CO_2$correction factor for correcting measurement data to 15 percent $O_2$, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 5)}$$

Where:

$X_{CO2}$= $CO_2$correction factor, percent.

5.9 = 20.9 percent $O_2$−15 percent $O_2$, the defined $O_2$correction value, percent.

(iii) Calculate the $NO_X$ and PM gas concentrations adjusted to 15 percent $O_2$ using $CO_2$ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \qquad \text{(Eq. 6)}$$

Where:

$C_{adj}$ = Calculated $NO_X$ or PM concentration adjusted to 15 percent $O_2$.

$C_d$ = Measured concentration of $NO_X$ or PM, uncorrected.

$\%CO_2$ = Measured $CO_2$ concentration, dry basis, percent.

(e) To determine compliance with the $NO_X$ mass per unit output emission limitation, convert the concentration of $NO_X$ in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 7)}$$

Where:

ER = Emission rate in grams per KW-hour.

$C_d$ = Measured $NO_X$ concentration in ppm.

$1.912 \times 10^{-3}$ = Conversion constant for ppm $NO_X$ to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{\text{KW-hour}} \qquad \text{(Eq. 8)}$$

Where:

ER = Emission rate in grams per KW-hour.

$C_{adj}$ = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

**Notification, Reports, and Records for Owners and Operators**

**§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

**Special Requirements**

**§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?**

(a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§60.4202 and 60.4205.

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

(c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:

(1) For engines installed prior to January 1, 2012, limit the emissions of $NO_X$ in the stationary CI internal combustion engine exhaust to the following:

(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and

(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of $NO_X$ in the stationary CI internal combustion engine exhaust to the following:

(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than

2,000 rpm and where n is maximum engine speed; and

(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

[71 FR 39172, July 11, 2006, as amended at 76 FR 37971, June 28, 2011]

**§ 60.4216 What requirements must I meet for engines used in Alaska?**

(a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in areas of Alaska not accessible by the FAHS may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in sections §§60.4201(f) and 60.4202(g) of this subpart.

(c) Manufacturers, owners and operators of stationary CI ICE that are located in areas of Alaska not accessible by the FAHS may choose to meet the applicable emission standards for emergency engines in §60.4202 and §60.4205, and not those for non-emergency engines in §60.4201 and §60.4204, except that for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine that was not certified as meeting Tier 4 PM standards, must meet the applicable requirements for PM in §60.4201 and §60.4204 or install a PM emission control device that achieves PM emission reductions of 85 percent, or 60 percent for engines with a displacement of greater than or equal to 30 liters per cylinder, compared to engine-out emissions.

(d) The provisions of §60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS.

(e) The provisions of §60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.

(f) The provisions of this section and §60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on-specification levels and properties for used oil in 40 CFR 279.11.

[76 FR 37971, June 28, 2011]

**§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?**

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4204 or §60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

[76 FR 37972, June 28, 2011]

**General Provisions**

**§ 60.4218 What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Definitions

**§ 60.4219 What definitions apply to this subpart?**

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

*Certified emissions life* means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

*Combustion turbine* means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

*Compression ignition* means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

*Date of manufacture* means one of the following things:

(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

*Diesel fuel* means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

*Diesel particulate filter* means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

*Emergency stationary internal combustion engine* means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

*Engine manufacturer* means the manufacturer of the engine. See the definition of “manufacturer” in this section.

*Fire pump engine* means an emergency stationary internal combustion engine certified to NFPA requirements that is

used to provide power to pump water for fire suppression or protection.

*Freshly manufactured engine* means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.

*Installed* means the engine is placed and secured at the location where it is intended to be operated.

*Manufacturer* has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

*Maximum engine power* means maximum engine power as defined in 40 CFR 1039.801.

*Model year* means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:

(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).

*Other internal combustion engine* means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

*Reciprocating internal combustion engine* means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

*Rotary internal combustion engine* means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

*Spark ignition* means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

*Stationary internal combustion engine* means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

*Subpart* means 40 CFR part 60, subpart IIII.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

**Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007–2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder**

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

| Maximum engine power | Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr) | | | | |
|---|---|---|---|---|---|
| | **NMHC + $NO_X$** | **HC** | **$NO_X$** | **CO** | **PM** |
| KW<8 (HP<11) | 10.5 (7.8) | | | 8.0 (6.0) | 1.0 (0.75) |
| 8≤KW<19 (11≤HP<25) | 9.5 (7.1) | | | 6.6 (4.9) | 0.80 (0.60) |
| 19≤KW<37 (25≤HP<50) | 9.5 (7.1) | | | 5.5 (4.1) | 0.80 (0.60) |
| 37≤KW<56 (50≤HP<75) | | | 9.2 (6.9) | | |
| 56≤KW<75 (75≤HP<100) | | | 9.2 (6.9) | | |
| 75≤KW<130 (100≤HP<175) | | | 9.2 (6.9) | | |
| 130≤KW<225 (175≤HP<300) | | 1.3 (1.0) | 9.2 (6.9) | 11.4 (8.5) | 0.54 (0.40) |
| 225≤KW<450 (300≤HP<600) | | 1.3 (1.0) | 9.2 (6.9) | 11.4 (8.5) | 0.54 (0.40) |
| 450≤KW≤560 (600≤HP≤750) | | 1.3 (1.0) | 9.2 (6.9) | 11.4 (8.5) | 0.54 (0.40) |
| KW>560 (HP>750) | | 1.3 (1.0) | 9.2 (6.9) | 11.4 (8.5) | 0.54 (0.40) |

**Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder**

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

| | **Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)** | | | |
|---|---|---|---|---|
| **Engine power** | **Model year(s)** | **$NO_X$+ NMHC** | **CO** | **PM** |
| KW<8 (HP<11) | 2008+ | 7.5 (5.6) | 8.0 (6.0) | 0.40 (0.30) |
| 8≤KW<19 (11≤HP<□5) | 2008+ | 7.5 (5.6) | 6.6 (4.9) | 0.40 (0.30) |
| 19≤KW<37 (25≤HP<50) | 2008+ | 7.5 (5.6) | 5.5 (4.1) | 0.30 (0.22) |

**Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines**

As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:

| **Engine power** | **Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d)[1]** |
|---|---|
| KW<75 (HP<100) | 2011 |
| 75≤KW<130 (100≤HP<175) | 2010 |
| 130≤KW≤56□ (175≤HP≤750) | 2009 |
| KW>560 (HP>750) | 2008 |

[1]Manufacturers of fire pump stationary CI ICE with a maximum engine power greater than or equal to 37 kW (50 HP) and less than 450 KW (600 HP) and a rated speed of greater than 2,650 revolutions per minute (rpm) are not required to certify such engines until three model years following the model year indicated in this Table 3 for engines in the applicable engine power category.

[71 FR 39172, July 11, 2006, as amended at 76 FR 37972, June 28, 2011]

**Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines**

[As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

| **Maximum engine power** | **Model year(s)** | **NMHC + $NO_X$** | **CO** | **PM** |
|---|---|---|---|---|
| KW<8 (HP<11) | 2010 and earlier | 10.5 (7.8) | 8.0 (6.0) | 1.0 (0.75) |
| | 2011+ | 7.5 (5.6) | | 0.40 (0.30) |
| 8≤KW<19 (11≤HP<25) | 2010 and earlier | 9.5 (7.1) | 6.6 (4.9) | 0.80 (0.60) |
| | 2011+ | 7.5 (5.6) | | 0.40 (0.30) |
| 19≤KW<37 (25≤HP<50) | 2010 and earlier | 9.5 (7.1) | 5.5 (4.1 | 0.80 (0.60) |
| | 2011+ | 7.5 (5.6) | | 0.30 (0.22) |
| 37≤KW<56 (50≤HP<75) | 2010 and earlier | 10.5 (7.8) | 5.0 (3.7) | 0.80 (0.60) |
| | 2011+[1] | 4.7 (3.5) | | 0.40 (0.30) |
| 56≤KW<75 (75≤HP<100) | 2010 and earlier | 10.5 (7.8) | 5.0 (3.7) | 0.80 (0.60) |
| | 2011+[1] | 4.7 (3.5) | | 0.40 (0.30 |
| 75≤KW<130 (100≤HP<175) | 2009 and earlier | 10.5 (7.8) | 5.0 (3.7) | 0.80 (0.60) |
| | 2010+[2] | 4.0 (3.0) | | 0.30 (0.22) |
| 130≤KW<225 (175≤HP<300) | 2008 and earlier | 10.5 (7.8) | 3.5 (2.6) | 0.54 (0.40) |
| | 2009+[3] | 4.0 (3.0) | | 0.20 (0.15) |
| 225≤KW<450 (300≤HP<600) | 2008 and ear ier | 10.5 (7.8) | 3.5 (2.6) | 0.54 (0.40) |
| | 2009+[3] | 4.0 (3.0) | | 0.20 (0.15) |
| 450≤KW≤560 (600≤HP≤750) | 2008 and earlier | 10.5 (7.8) | 3.5 (2.6) | 0.54 (0.40) |
| | 2009+ | 4.0 (3.0) | | 0.20 (0.15) |

| | | | | |
|---|---|---|---|---|
| KW>560 (HP>750) | 2007 and earlier | 10.5 (7.8) | 3.5 (2.6) | 0.54 (0.40) |
| | 2008+ | 6.4 (4.8) | | 0.20 (0.15) |

[1]For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

[2]For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

[3]In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

**Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines**

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

| **Engine power** | **Starting model year** |
|---|---|
| 19≤KW<56 (25≤HP<75) | 2013 |
| 56≤KW<130 (75≤HP<175) | 2012 |
| KW≥130 (HP≥175) | 2011 |

**Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines**

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

| **Mode No.** | **Engine speed[1]** | **Torque (percent)[2]** | **Weighting factors** |
|---|---|---|---|
| 1 | Rated | 100 | 0.30 |
| 2 | Rated | 75 | 0.50 |
| 3 | Rated | 50 | 0.20 |

[1]Engine speed: ±2 percent of point.

[2]Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

**Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder**

[As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

| For each | Complying with the requirement to | You must | Using | According to the following requirements |
|---|---|---|---|---|
| 1. Stationary CI internal combustion engine with a displacement of ≥30 liters per cylinder | a. Reduce $NO_X$emissions by 90 percent or more | i. Select the sampling port location and the number of traverse points; | (1) Method 1 or 1A of 40 CFR part 60, appendix A | (a) Sampling sites must be located at the inlet and outlet of the control device. |
| | | ii. Measure $O_2$at the inlet and outlet of the control device; | (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A | (b) Measurements to determine $O_2$concentration must be made at the same time as the measurements for $NO_X$concentration. |
| | | iii. If necessary, measure moisture content at the inlet and outlet of the control device; and, | (3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17) | (c) Measurements to determine moisture content must be made at the same time as the measurements for $NO_X$concentration. |
| | | iv. Measure $NO_X$at the inlet and outlet of the control device | (4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17) | (d) $NO_X$concentration must be at 15 percent $O_2$, dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |
| | b. Limit the concentration of $NO_X$in the stationary CI internal combustion engine exhaust. | i. Select the sampling port location and the number of traverse points; | (1) Method 1 or 1A of 40 CFR part 60, appendix A | (a) If using a control device, the sampling site must be located at the outlet of the control device. |
| | | ii. Determine the | (2) Method 3, 3A, or 3B | (b) Measurements to |

| | | | | |
|---|---|---|---|---|
| | | $O_2$concentration of the stationary internal combustion engine exhaust at the sampling port location; and, | of 40 CFR part 60, appendix A | determine $O_2$concentration must be made at the same time as the measurement for $NO_X$concentration. |
| | | iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and, | (3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17) | (c) Measurements to determine moisture content must be made at the same time as the measurement for $NO_X$concentration. |
| | | iv. Measure $NO_X$at the exhaust of the stationary internal combustion engine | (4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17) | (d) $NO_X$concentration must be at 15 percent $O_2$, dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |
| | c. Reduce PM emissions by 60 percent or more | i. Select the sampling port location and the number of traverse points; | (1) Method 1 or 1A of 40 CFR part 60, appendix A | (a) Sampling sites must be located at the inlet and outlet of the control device. |
| | | ii. Measure $O_2$at the inlet and outlet of the control device; | (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A | (b) Measurements to determine $O_2$concentration must be made at the same time as the measurements for PM concentration. |
| | | iii. If necessary, measure moisture content at the inlet and outlet of the control device; and | (3) Method 4 of 40 CFR part 60, appendix A | (c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration. |
| | | iv. Measure PM at the inlet and outlet of the control device | (4) Method 5 of 40 CFR part 60, appendix A | (d) PM concentration must be at 15 percent $O_2$, dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |

| | | | | |
|---|---|---|---|---|
| | d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust | i. Select the sampling port location and the number of traverse points; | (1) Method 1 or 1A of 40 CFR part 60, appendix A | (a) If using a control device, the sampling site must be located at the outlet of the control device. |
| | | ii. Determine the $O_2$concentration of the stationary internal combustion engine exhaust at the sampling port location; and | (2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A | (b) Measurements to determine $O_2$concentration must be made at the same time as the measurements for PM concentration. |
| | | iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and | (3) Method 4 of 40 CFR part 60, appendix A | (c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration. |
| | | iv. Measure PM at the exhaust of the stationary internal combustion engine | (4) Method 5 of 40 CFR part 60, appendix A | (d) PM concentration must be at 15 percent $O_2$, dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |

**Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII**

[As stated in §60.4218, you must comply with the following applicable General Provisions:]

| General Provisions citation | Subject of citation | Applies to subpart | Explanation |
|---|---|---|---|
| §60.1 | General applicability of the General Provisions | Yes | |
| §60.2 | Definitions | Yes | Additional terms defined in §60.4219. |
| §60.3 | Units and abbreviations | Yes | |
| §60.4 | Address | Yes | |

| | | | |
|---|---|---|---|
| §60.5 | Determination of construction or modification | Yes | |
| §60.6 | Review of plans | Yes | |
| §60.7 | Notification and Recordkeeping | Yes | Except that §60.7 only applies as specified in §60.4214(a). |
| §60.8 | Performance tests | Yes | Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 li□ers per cylinder and engines that are not certified. |
| §60.9 | Availability of information | Yes | |
| §60.10 | State Authority | Yes | |
| §60.11 | Compliance with standards and maintenance requirements | No | Requirements are specified in subpart IIII. |
| §60.12 | Circumvention | Yes | |
| §60.13 | Monitoring requirements | Yes | Except that §60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder. |
| §60.14 | Modification | Yes | |
| §60.15 | Reconstruction | Yes | |
| §60.16 | Priority list | Yes | |
| §60.17 | Incorporations by reference | Yes | |
| §60.18 | General control device □equirements | No | |
| §60.19 | General notification and reporting requirements | Yes | |

**ATTACHMENT C**

**Title 40: Protection of Environment**

**Subpart IIII—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:

$$C_{avg,as} = \frac{\sum_{j=1}^{r} (Vol_{as,j})(D_{as,j})(W_{as,j})}{\sum_{j=1}^{r} (Vol_{as,j})(D_{as,j})} \qquad (Eq.\ 1)$$

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:

$$C_{avg,d} = \frac{\sum_{m=1}^{s} (Vol_{d,m})(D_{d,m})(W_{d,m})}{\sum_{m=1}^{s} (Vol_{d,m})(D_{d,m})} \qquad (Eq.\ 2)$$

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:

$$H_{BC} = A + B \qquad (Eq.\ 1)$$

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:

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

Where:
A = Total mass of organic HAP in the coatings used during the month, kg.
$Vol_{c,i}$= Total volume of coating, i, used during the month, liters.
$D_{c,i}$= Density of coating, i, kg coating per liter coating.
$W_{c,i}$= Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.
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:

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

Where:
B = Total mass of organic HAP in the thinners used 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 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.

$$H_{Cn} = \left(A_C + B_C - A_{unc} - B_{unc}\right)\left(\frac{CE}{100} \times \frac{DRE}{100}\right) \qquad (Eq.\ 2)$$

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.

$$A_c = \sum_{i=1}^{m} (Vol_{c,i})(D_{c,i})(W_{c,i}) \qquad (Eq.\ 2A)$$

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.

$$B_c = \sum_{j=1}^{n} (Vol_{t,j})(D_{t,j})(W_{t,j}) \qquad (Eq.\ 2B)$$

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:

$$A_{unc} = \sum_{i=1}^{m} (VOLD_i)(D_i)(W_i) \qquad (Eq.\ 2C)$$

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.
$VOLD_i$= Total volume of coating, i, used in the controlled coating operation during deviations, liters.
$D_i$= Density of coating, i, kg per liter.
$W_i$= 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:

$$B_{unc} = \sum_{j=1}^{n} (VOLD_j)(D_j)(W_j) \qquad (Eq.\ 2D)$$

Where:
$B_{unc}$= 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.
$VOLD_j$= Total volume of thinner, j, used in the controlled coating operation during deviations, liters.
$D_j$= Density of thinner, j, kg per liter.
$W_h$= 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:

$$R_v = 100 \frac{M_{VR}}{\sum_{i=1}^{m} Vol_i D_i WV_{c,i} + \sum_{j=1}^{n} Vol_j D_j WV_{t,j}} \qquad (Eq.\ 3)$$

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:

$$H_{CSR} = \left(A_{CSR} + B_{CSR}\right)\left(\frac{R_V}{100}\right) \qquad (Eq.\ 4)$$

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.

$$A_{CSR} = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad (Eq.\ 4A)$$

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.

$$B_{CSR} = \sum_{j=1}^{n} \left(Vol_{t,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad (Eq.\ 4B)$$

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:

$$V_{sdep} = \sum_{i=1}^{m} \left(Vol_{c,i}\right)\left(V_{s,i}\right)\left(TE_{c,i}\right) \qquad (Eq.\ 5)$$

Where:
$V_{sdep}$= 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.

$$H_{HAP} = H_{BC} - \sum_{i=1}^{q} \left(H_{Ot,i}\right) - \sum_{j=1}^{r} \left(H_{CSR,j}\right) - \sum_{k=1}^{q} \sum_{m=1}^{Sk} \left(H_{DEV,k,m}\right) \qquad (Eq.\ 6)$$

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:

$$H_{rate} = (H_{HAP})/(V_{sdep}) \qquad (Eq.\ 7)$$

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.

$$H_{DEV} = \left(A_{DEV} + B_{DEV}\right)\left(\frac{CE_{DEV}}{100}\right)\left(\frac{DRE_{DEV}}{100}\right) \qquad (Eq.\ 8)$$

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:

$$A_{DEV} = \sum_{i=i}^{m}\left(VOL_{CDEV,i}\right)\left(D_{c,i}\right)\left(W_{c,i}\right) \qquad (Eq.\ 8A)$$

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:

$$BDEV = \sum_{j=i}^{n}\left(VOL_{TDEV,j}\right)\left(D_{t,j}\right)\left(W_{t,j}\right) \qquad (Eq.\ 8B)$$

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.

$$TVH_{used} = \sum_{i=1}^{n} (TVH_i)(Vol_i)(D_i) \qquad (Eq.\ 1)$$

Where:
$TVH_i$= 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.
$Vol_i$= Total volume of coating or thinner, i, used in the coating operation during the capture efficiency test run, liters.
$D_i$= 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:

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \qquad (Eq.\ 2)$$

Where:
CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.
$TVH_{used}$= Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.
$TVH_{uncaptured}$= Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.
(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.
(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.
(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings 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:

$$CE = \frac{TVH_{captured}}{\left(TVH_{captured} + TVH_{uncaptured}\right)} \times 100 \qquad \text{(Eq. 3)}$$

Where:
CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.
$TVH_{captured}$= Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.
$TVH_{uncaptured}$= Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.
(5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.
(e) *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.)

$$CE_i = (P_{v,i})(V_{sdep,i})(100)/(VOC_i) \qquad (Eq\ 4)$$

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:

$$V_{sdep,i} = (V_{s,i})(TE_{c,i}) \qquad (Eq.\ 5)$$

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:

$$VOC_i = (D_{c,i})(Wvoc_{c,i}) \qquad (Eq\ 6)$$

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).
$Wvoc_{c,i}$= 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:

$$CE_i = (P_{m,i})(W_{sdep,i})(100)/(Wvoc_{c,i}) \qquad \text{(Eq. 7)}$$

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.
$Wvoc_{c,i}$= 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:

$$W_{sdep,i} = (W_{s,i})(TE_{c,i}) \qquad \text{(Eq. 8)}$$

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.

$$M_f = Q_{sd} C_c (12)(0.0416)(10^{-6}) \qquad \text{(Eq. 1)}$$

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 (mol/$m^3$ ) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency using Equation 2 of this section:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}}(100) \qquad \text{(Eq. 2)}$$

Where:
DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.
$M_{fi}$= Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.
$M_{fo}$= Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.
(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

**§ 63.3167 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 pinstriping 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 coatingspplied 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

| For the following device . . . | You must meet the following operating limit . . . | And you must demonstrate continuous compliance with the operating limit by |
|---|---|---|
| 1. Thermal oxidizer | a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.3167(a) | i. Collecting the combustion temperature data according to §63.3168(c);<br>ii. Reducing the data to 3-hour block averages; and<br>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 temperature according to §63.3168(c);<br>ii. Reducing the data to 3-hour block averages; and<br>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);<br>ii. Reducing the data to 3-hour block averages; and<br>iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit; or |
| | c. Develop and implement an inspection and maintenance plan according to | i. Maintaining an up-to-date inspection maintenance plan, records of annual |

| | | |
|---|---|---|
| | §63.3167(b)(4) | 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<br>ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit. |
| | b. The temperature of the carbon bed after completing each regeneration and any cooling cycle must not exceed the carbon bed temperature limit established according to §63.3167(c) | i. Measuring the temperature of the carbon bed after completing each regeneration and any cooling cycle according to §63.3168(d); and<br>ii. Operating the carbon beds such that each carbon bed is not returned to service until completing each regeneration and any cooling cycle until the recorded temperature of the carbon bed is at or below the temperature limit. |
| 4. Condenser | a. The average condenser outlet (product side) gas temperature in any 3-hour period must not exceed the temperature limit established according to §63.3167(d) | i. Collecting the condenser outlet (product side) gas temperature according to §63.3168(e);<br>ii. Reducing the data to 3-hour block averages; and<br>iii. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit. |
| 5. Concentrators, including zeolite wheels and rotary carbon adsorbers | a. The average 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);<br>ii. Reducing the data to 3-hour block averages; and<br>iii. maintaining the 3-hour average temperature at or above the temperature limit. |
| 6. Emission capture system that is a PTE | a. The direction of the air flow at all times must be into the enclosure; and either<br>b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or<br>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 | 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<br>ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining |

| | | |
|---|---|---|
| | | the direction of air flow into the enclosure at all times. |
| 7. Emission capture system that is not a PTE | 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 | i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to §63.3168(g);<br>ii. Reducing the data to 3-hour block averages; and<br>iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit. |

[69 FR 22623, Apr. 26, 2004, as amended at 72 FR 20236, Apr. 24, 2007]

**Table 2 to Subpart IIII of Part 63—Applicability of General Provisions to Subpart IIII of Part 63**
You must comply with the applicable General Provisions requirements according to the following table

| Citation | Subject | Applicable to subpart IIII | Explanation |
|---|---|---|---|
| §63.1(a)(1)–(12) | General Applicability | Yes | |
| §63.1(b)(1)–(3) | Initial Applicability Determination | Yes | Applicability to subpart IIII 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 IIII. |
| §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 Sources | Yes | Section 63.3083 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 | Yes | Applies only to performance tests for capture system and add-on control device efficiency at sources using |

| | | | |
|---|---|---|---|
| | Conditions During Test | | 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 (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 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 Method | Yes. | |
| §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)– | | Yes | |

| | | | |
|---|---|---|---|
| (15) | | | |
| §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. Ligroines (VM & P) | 8032–32–4 | 0 | None. |
| 13. Lactol spirits | 64742–89–6 | 0.15 | Toluene. |
| 14. Low aromatic white spirit | 64742–82–1 | 0 | None. |
| 15. Mineral spirits | 64742–88–7 | 0.01 | Xylenes. |
| 16. Hydrotreated naphtha | 64742–48–9 | 0 | None. |
| 17. Hydrotreated light distillate | 64742–47–8 | 0.001 | Toluene. |
| 18. Stoddard solvent | 8052–41–3 | 0.01 | Xylenes. |
| 19. Super high-flash naphtha | 64742–95–6 | 0.05 | Xylenes. |
| 20. Varsol®solvent | 8052–49–3 | 0.01 | 0.5% xylenes, 0.5% ethylbenzene. |
| 21. VM & P naphtha | 64742–89–8 | 0.06 | 3% toluene, 3% xylene. |
| 22. Petroleum distillate mixture | 68477–31–6 | 0.08 | 4% naphthalene, 4% biphenyl. |

**Table 4 to Subpart IIII of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups[a]**

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data

| Solvent type | Average organic HAP mass fraction | Typical organic HAP, percent by mass |
|---|---|---|
| Aliphatic[b] | 0.03 | 1% Xylene, 1% Toluene, and 1% Ethylbenzene. |
| Aromatic[c] | 0.06 | 4% Xylene, 1% Toluene, and 1% Ethylbenzene. |

[a]Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart, and you only know whether the blend is aliphatic or aromatic.

[b] *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.

[c] *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 $W_{blank,i}$(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 $W_{wet,i}$(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.

$$W_{sdep,i} = W_{baked,i} - W_{blank,i} \qquad \text{(Eq. A-1)}$$

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.

$$W_{rem,i} = W_{wet,i} - W_{baked,i} \qquad \text{(Eq. A-2)}$$

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.

$$P_{m,i} = \left(W_{rem,i}\right)/\left(W_{sdep,i}\right) \qquad (Eq.\ \text{A-3})$$

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.

$$Pvoc_{pan,i} = \left(P_{m,i}\right)\left(W_{s,i}\right)(100)/\left(Wvoc_{c,i}\right) \qquad (Eq.\ \text{A-4})$$

Where:
$Pvoc_{pan,i}$= 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).
$Wvoc_{c,i}$= 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.

$$CE_{zone,i} = 100 - Pvoc_{pan,i} \qquad (Eq.\ A\text{-}5)$$

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.

$$CE_i = \left(CE_{zone,i}\right)\left(V_{zone,i}\right)/\left(V_{booth,i}\right) \qquad S(Eq.\ A\text{-}6)$$

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.

**ATTACHMENT D**

**Title 40: Protection of Environment**

**Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

**Source:** 69 FR 33506, June 15, 2004, unless otherwise noted.

**What This Subpart Covers**
**§ 63.6580 What is the purpose of subpart ZZZZ?**

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.
[73 FR 3603, Jan. 18, 2008]

**§ 63.6585 Am I subject to this subpart?**

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.
(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.
(c) An area source of HAP emissions is a source that is not a major source.
(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.
(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.
[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008]

**§ 63.6590 What parts of my plant does this subpart cover?**

This subpart applies to each affected source.
(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
(1) *Existing stationary RICE.*
(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.
(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.
(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.
(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
(3) *Reconstructed stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.
(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.
(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.
(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).
(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.
(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:
(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
(vi) Existing residential emergency stationary RICE located at an area source of HAP emissions;
(vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions; or
(viii) Existing institutional emergency stationary RICE located at an area source of HAP emissions.
(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
(1) A new or reconstructed stationary RICE located at an area source;
(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.
[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010]

**§ 63.6595 When do I have to comply with this subpart?**

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.
(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.
(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.
(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.
(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.
(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.
(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.
[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

**Emission and Operating Limitations**

**§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.
(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.
(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.
(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.
(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.
[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

**§ 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.
[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

**§ 63.6602 What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?**

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this

subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.
[75 FR 51589, Aug. 20, 2010]

**§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.
(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you.
(b) If you own or operate an existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the Federal Aid Highway System (FAHS) you do not have to meet the numerical CO emission limitations specified in Table 2d to this subpart. Existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the FAHS must meet the management practices that are shown for stationary non-emergency CI RICE less than or equal to 300 HP in Table 2d to this subpart.
[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

**§ 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?**

If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.
[75 FR 51589, Aug. 20, 2010]

**General Compliance Requirements**
**§ 63.6605 What are my general requirements for complying with this subpart?**

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.
(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[75 FR 9675, Mar. 3, 2010]

**Testing and Initial Compliance Requirements**
**§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?**

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).
(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).
(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).
(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.
(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
(2) The test must not be older than 2 years.
(3) The test must be reviewed and accepted by the Administrator.
(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.
(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.
[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

**§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?**

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.
[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

**§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?**

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.
(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).
(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.
(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.
(3) The test must be reviewed and accepted by the Administrator.
(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.
[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

**§ 63.6615 When must I conduct subsequent performance tests?**

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

**§ 63.6620 What performance tests and other procedures must I use?**

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.
(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again.
(c) [Reserved]
(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.
(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 1)}$$

Where:
$C_i$= concentration of CO or formaldehyde at the control device inlet,
$C_o$= concentration of CO or formaldehyde at the control device outlet, and
R = percent reduction of CO or formaldehyde emissions.
(2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide ($CO_2$). If pollutant concentrations are to be corrected to 15 percent oxygen and $CO_2$concentration is measured in lieu of oxygen concentration measurement, a $CO_2$correction factor is needed. Calculate the $CO_2$correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.
(i) Calculate the fuel-specific $F_o$value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

$$F_o = \frac{0.209\, F_d}{F_c} \qquad \text{(Eq. 2)}$$

Where:
$F_o$= Fuel factor based on the ratio of oxygen volume to the ultimate $CO_2$volume produced by the fuel at zero percent excess air.
0.209 = Fraction of air that is oxygen, percent/100.
$F_d$= Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, $dsm^3$ /J (dscf/$10^6$ Btu).
$F_c$= Ratio of the volume of $CO_2$produced to the gross calorific value of the fuel from Method 19, $dsm^3$ /J (dscf/$10^6$ Btu).
(ii) Calculate the $CO_2$correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{co_2} = \frac{5.9}{F_o} \qquad \text{(Eq. 3)}$$

Where:
$X_{co2}$= $CO_2$correction factor, percent.
5.9 = 20.9 percent $O_2$−15 percent $O_2$, the defined $O_2$correction value, percent.
(iii) Calculate the $NO_X$and $SO_2$gas concentrations adjusted to 15 percent $O_2$using $CO_2$as follows:

$$C_{adj} = C_d \frac{X_{co_2}}{\%CO_2} \qquad \text{(Eq. 4)}$$

Where:
%$CO_2$= Measured $CO_2$concentration measured, dry basis, percent.
(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.
(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.
(1) Identification of the specific parameters you propose to use as operating limitations;
(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;
(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.
(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally ( *e.g.,* operator adjustment, automatic controller adjustment, etc.) or unintentionally ( *e.g.,* wear and tear, error, etc.) on a routine basis or over time;
(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;
(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;
(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;
(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and
(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.
(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be

clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.
[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010]

**§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?**

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or $CO_2$at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.
(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.
(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.
(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent $CO_2$concentration.
(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (5) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.
(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.
(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
(ii) Sampling interface ( *e.g.,* thermocouple) location such that the monitoring system will provide representative measurements;
(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;
(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and
(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).
(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.
(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).
(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.
(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.
(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.
(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In

addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.
(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.
(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:
(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;
(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;
(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;
(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;
(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;
(6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;
(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and
(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.
(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) of this section.
(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.
(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.
(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning

limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

**§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?**

(a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.
(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.
(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

**Continuous Compliance Requirements**
**§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?**

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.
(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.
[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

**§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?**

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.
(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.
(c) [Reserved]
(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).
(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.
(f) *Requirements for emergency stationary RICE.* (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.
(i) There is no time limit on the use of emergency stationary RICE in emergency situations.
(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.
(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and

testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.
(2) If you own or operate an emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed prior to June 12, 2006, you must operate the engine according to the conditions described in paragraphs (f)(2)(i) through (iii) of this section. If you do not operate the engine according to the requirements in paragraphs (f)(2)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.
(i) There is no time limit on the use of emergency stationary RICE in emergency situations.
(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.
(iii) You may operate your emergency stationary RICE for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

**Notifications, Reports, and Records**
**§ 63.6645 What notifications must I submit and when?**

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;
(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.
(2) An existing stationary RICE located at an area source of HAP emissions.
(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.
(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.
(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.
(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.
(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.
(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).
(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).
(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).
(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.
(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).
[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

**§ 63.6650 What reports must I submit and when?**

(a) You must submit each report in Table 7 of this subpart that applies to you.
(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.
(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.
(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.
(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
(4) For semiannual Compliance reports, each subsequent 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.
(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 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 dates in paragraphs (b)(1) through (b)(4) of this section.
(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.
(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.
(1) Company name and address.
(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
(3) Date of report and beginning and ending dates of the reporting period.
(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.
(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.
(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.
(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.
(1) The date and time that each malfunction started and stopped.
(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
(3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).
(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
(9) A brief description of the stationary RICE.
(10) A brief description of the CMS.
(11) The date of the latest CMS certification or audit.
(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 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 Compliance report pursuant to Table 7 of this subpart 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 Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.
(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.
(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.
(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.
(3) Any problems or errors suspected with the meters.
[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010]

**§ 63.6655 What records must I keep?**

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.
(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).
(2) Records of the occurrence and duration of each malfunction of operation ( *i.e.,* process equipment) or the air pollution control and monitoring equipment.
(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).
(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.
(1) Records described in §63.10(b)(2)(vi) through (xi).
(2) Previous ( *i.e.,* superseded) versions of the performance evaluation plan as required in §63.8(d)(3).
(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.
(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.
(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.
(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;
(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.
(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.
(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.
(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.
[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010]

**§ 63.6660 In what form and 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).
(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 readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).
[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

**Other Requirements and Information**
**§ 63.6665 What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.
[75 FR 9678, Mar. 3, 2010]

**§ 63.6670 Who implements and enforces this subpart?**

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether 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 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA 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:
(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 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.
(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

**§ 63.6675 What definitions apply to this subpart?**

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:
*Area source* means any stationary source of HAP that is not a major source as defined in part 63.
*Associated equipment* as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.
*Black start engine* means an engine whose only purpose is to start up a combustion turbine.
*CAA* means the Clean Air Act (42 U.S.C. 7401 *et seq.,* as amended by Public Law 101–549, 104 Stat. 2399).
*Commercial emergency stationary RICE* means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.
*Compression ignition* means relating to a type of stationary internal combustion engine that is not a spark ignition engine.
*Custody transfer* means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.
*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 limitation or operating limitation;
(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 limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.
(4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).
*Diesel engine* means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.
*Diesel fuel* means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties ( *e.g.* biodiesel) that is suitable for use in compression ignition engines.
*Digester gas* means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and $CO_2$.

*Dual-fuel engine* means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.
*Emergency stationary RICE* means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, *etc.* Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.
*Engine startup* means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.
*Four-stroke engine* means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.
*Gaseous fuel* means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.
*Gasoline* means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.
*Glycol dehydration unit* means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes “rich” glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The “lean” glycol is then recycled.
*Hazardous air pollutants (HAP)* means any air pollutants listed in or pursuant to section 112(b) of the CAA.
*Institutional emergency stationary RICE* means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.
*ISO standard day conditions* means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.
*Landfill gas* means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and $CO_2$.
*Lean burn engine* means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.
*Limited use stationary RICE* means any stationary RICE that operates less than 100 hours per year.
*Liquefied petroleum gas* means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.
*Liquid fuel* means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.
*Major Source,* as used in this subpart, shall have the same meaning as in §63.2, except that:
(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;
(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and
(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.
*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.
*Natural gas* means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.
*Non-selective catalytic reduction (NSCR)* means an add-on catalytic nitrogen oxides ($NO_X$) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, $NO_X$, CO, and volatile organic compounds (VOC) into $CO_2$, nitrogen, and water.
*Oil and gas production facility* as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded ( *i.e.,* remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.
*Oxidation catalyst* means an add-on catalytic control device that controls CO and VOC by oxidation.
*Peaking unit or engine* means any standby engine intended for use during periods of high demand that are not emergencies.
*Percent load* means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.
*Potential to emit* means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).
*Production field facility* means those oil and gas production facilities located prior to the point of custody transfer.
*Production well* means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.
*Propane* means a colorless gas derived from petroleum and natural gas, with the molecular structure $C_3H_8$.
*Residential emergency stationary RICE* means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.
*Responsible official* means responsible official as defined in 40 CFR 70.2.

*Rich burn engine* means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for $NO_X$(such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.
*Site-rated HP* means the maximum manufacturer's design capacity at engine site conditions.
*Spark ignition* means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.
*Stationary reciprocating internal combustion engine (RICE)* means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
*Stationary RICE test cell/stand* means an engine test cell/stand, as defined in subpart PPPPP of this part, that tests stationary RICE.
*Stoichiometric* means the theoretical air-to-fuel ratio required for complete combustion.
*Storage vessel with the potential for flash emissions* means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.
*Subpart* means 40 CFR part 63, subpart ZZZZ.
*Surface site* means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.
*Two-stroke engine* means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.
[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011]

**Table 1ato Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

| For each . . . | You must meet the following emission limitation, except during periods of startup . . . | During periods of startup you must . . . |
|---|---|---|
| 1. 4SRB stationary RICE | a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or | Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1] |
| | b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent $O_2$ | |

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

**Table 1bto Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed Spark Ignition 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions and Existing Spark Ignition 4SRB Stationary RICE >500 HP Located at an Area Source of HAP Emissions**

As stated in §§63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions and existing 4SRB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

| For each . . . | You must meet the following operating limitation . . . |
|---|---|
| 1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or<br>4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O2 and using NSCR; or<br>4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O2 and using NSCR. | a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and<br>b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F. |
| 2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or | Comply with any operating limitations approved by the Administrator. |

| | |
|---|---|
| 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O2 and not using NSCR; or<br>4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O2 and not using NSCR. | |

[76 FR 12867, Mar. 9, 2011]

**Table 2ato Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

| For each . . . | You must meet the following emission limitation, except during periods of startup . . . | During periods of startup you must . . . |
|---|---|---|
| 1. 2SLB stationary RICE | a. Reduce CO emissions by 58 percent or more; or<br>b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent $O_2$. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent $O_2$until June 15, 2007 | Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1] |
| 2. 4SLB stationary RICE | a. Reduce CO emissions by 93 percent or more; or | |
| | b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent $O_2$ | |
| 3. CI stationary RICE | a. Reduce CO emissions by 70 percent or more; or | |
| | b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent $O_2$ | |

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

**Table 2bto Subpart ZZZZ of Part 63— Operating Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing Compression Ignition Stationary RICE >500 HP, and Existing 4SLB Stationary RICE >500 HP Located at an Area Source of HAP Emissions**

As stated in §§63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and compression ignition stationary RICE located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; existing compression ignition stationary RICE >500 HP; and existing 4SLB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

| **For each . . .** | **You must meet the following operating limitation . . .** |
|---|---|
| 1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst | a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and<br>b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.[1] |
| 2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst | Comply with any operating limitations approved by the Administrator. |

[1]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.

[75 FR 51593, Aug. 20, 2010, as amended at 76 FR 12867, Mar. 9, 2011]

**Table 2cto Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

| For each . . . | You must meet the following requirement, except during periods of startup . . . | During periods of startup you must . . . |
|---|---|---|
| 1. Emergency stationary CI RICE and black start stationary CI RICE.[1] | a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2]<br>b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;<br>c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3] | Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3] |
| 2. Non-Emergency, non-black start stationary CI RICE <100 HP | a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[2] | |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3] | |
| 3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP | Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent $O_2$ | |
| 4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500 | a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent $O_2$; or | |
| | b. Reduce CO emissions by 70 percent or more. | |
| 5. Non-Emergency, non-black start stationary CI RICE >500 HP | a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 | |

| | | |
|---|---|---|
| | percent $O_2$; or | |
| | b. Reduce CO emissions by 70 percent or more. | |
| 6. Emergency stationary SI RICE and black start stationary SI RICE.[1] | a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] | |
| | b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3] | |
| 7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE | a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[2] | |
| | b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; | |
| | c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.[3] | |
| 8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP | a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[2] | |
| | b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; | |
| | c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.[3] | |
| 9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500 | Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent $O_2$ | |

| | | |
|---|---|---|
| 10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500 | Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent $O_2$ | |
| 11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500 | Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent $O_2$ | |
| 12. Non-emergency, non-black start landfill or digester gas-fired stationary RICE 100≤HP≤500 | Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent $O_2$ | |

[1]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.
[2]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.
[3]Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.
[75 FR 51593, Aug. 20, 2010]

**Table 2dto Subpart ZZZZ of Part 63— Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions**

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

| **For each . . .** | **You must meet the following requirement, except during periods of startup . . .** | **During periods of startup you must . . .** |
|---|---|---|
| 1. Non-Emergency, non-black start CI stationary RICE ≤300 HP | a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;[1] | Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;<br>c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, | |

| | | |
|---|---|---|
| | and replace as necessary. | |
| 2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500 | a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent $O_2$; or | |
| | b. Reduce CO emissions by 70 percent or more. | |
| 3. Non-Emergency, non-black start CI stationary RICE >500 HP | a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent $O_2$; or | |
| | b. Reduce CO emissions by 70 percent or more. | |
| 4. Emergency stationary CI RICE and black start stationary CI RICE.[2] | a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1] | |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. | |
| 5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year.[2] | a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]<br>b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and<br>c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. | |
| 6. Non-emergency, non-black start 2SLB stationary RICE | a. Change oil and filter every 4,320 hours of | |

| | | |
|---|---|---|
| | operation or annually, whichever comes first;[1] | |
| | b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary. | |
| 7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP | a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1] | |
| | b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. | |
| 8. Non-emergency, non-black start 4SLB stationary RICE >500 HP | a. Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15 percent $O_2$; or | |
| | b. Reduce CO emissions by 93 percent or more. | |
| 9. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP | a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1] | |
| | b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, | |

| | | |
|---|---|---|
| | and replace as necessary. | |
| 10. Non-emergency, non-black start 4SRB stationary RICE >500 HP | a. Limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd at 15 percent $O_2$; or | |
| | b. Reduce formaldehyde emissions by 76 percent or more. | |
| 11. Non-emergency, non-black start landfill or digester gas-fired stationary RICE | a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1] | |
| | b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. | |

[1]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.
[2]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.
[75 FR 51595, Aug. 20, 2010]

**Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests**
As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

| **For each . . .** | **Complying with the requirement to . . .** | **You must . . .** |
|---|---|---|
| 1. New or reconstructed 2SLB stationary RICE with a brake horsepower >500 located at major sources; new or reconstructed 4SLB stationary RICE with a brake horsepower ≥250 located at major sources; and new or reconstructed CI stationary RICE with a brake horsepower >500 located at major sources | Reduce CO emissions and not using a CEMS | Conduct subsequent performance tests semiannually.[1] |

| | | |
|---|---|---|
| 2. 4SRB stationary RICE with a brake horsepower ≥5,000 located at major sources | Reduce formaldehyde emissions | Conduct subsequent performance tests semiannually.[1] |
| 3. Stationary RICE with a brake horsepower >500 located at major sources and new or reconstructed 4SLB stationary RICE with a brake horsepower 250≤HP≤500 located at major sources | Limit the concentration of formaldehyde in the stationary RICE exhaust | Conduct subsequent performance tests semiannually.[1] |
| 4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are not limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year that are not limited use stationary RICE | Limit or reduce CO or formaldehyde emissions | Conduct subsequent performance tests every 8,760 hrs. or 3 years, whichever comes first. |
| 5. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year and are limited use stationary RICE | Limit or reduce CO or formaldehyde emissions | Conduct subsequent performance tests every 8,760 hrs. or 5 years, whichever comes first. |

[1]After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.
[75 FR 51596, Aug. 20, 2010]

**Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests**

As stated in §§63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

| **For each . . .** | **Complying with the requirement to . . .** | **You must . . .** | **Using . . .** | **According to the following requirements . . .** |
|---|---|---|---|---|
| 1. 2SLB, 4SLB, and CI stationary RICE | a. Reduce CO emissions | i. Measure the $O_2$ at the inlet and outlet of the control device; and | (1) Portable CO and $O_2$ analyzer | (a) Using ASTM D6522–00 (2005)[a] (incorporated by reference, see §63.14). Measurements to determine $O_2$ must be made at the same time as the measurements for CO concentration. |
| | | ii. Measure the CO at the inlet and the outlet of the control device | (1) Portable CO and $O_2$ analyzer | (a) Using ASTM D6522–00 (2005)[ab] (incorporated by reference, see §63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent $O_2$, dry basis. |
| 2. 4SRB | a. Reduce | i. Select the | (1) Method 1 or 1A of 40 | (a) Sampling sites must be |

| | | | | |
|---|---|---|---|---|
| stationary RICE | formaldehyde emissions | sampling port location and the number of traverse points; and | CFR part 60, appendix A §63.7(d)(1)(i) | located at the inlet and outlet of the control device. |
| | | ii. Measure $O_2$at the inlet and outlet of the control device; and | (1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00m (2005) | (a) Measurements to determine $O_2$concentration must be made at the same time as the measurements for formaldehyde concentration. |
| | | iii. Measure moisture content at the inlet and outlet of the control device; and | (1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 | (a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration. |
| | | iv. Measure formaldehyde at the inlet and the outlet of the control device | (1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[c]provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130 | (a) Formaldehyde concentration must be at 15 percent $O_2$, dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |
| 3. Stationary RICE | a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust | i. Select the sampling port location and the number of traverse points; and | (1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i) | (a) If using a control device, the sampling site must be located at the outlet of the control device. |
| | | ii. Determine the $O_2$concentration of the stationary RICE exhaust at the sampling port location; and | (1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005) | (a) Measurements to determine $O_2$concentration must be made at the same time and location as the measurements for formaldehyde concentration. |
| | | iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and | (1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 | (a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration. |
| | | iv. Measure formaldehyde at the exhaust of the stationary RICE; or | (1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[c]provided in ASTM D6348–03 Annex A5 (Analyte Spiking | (a) Formaldehyde concentration must be at 15 percent $O_2$, dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |

| | | | | |
|---|---|---|---|---|
| | | | Technique), the percent R must be greater than or equal to 70 and less than or equal to 130 | |
| | | v. Measure CO at the exhaust of the stationary RICE | (1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005),[a]Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03 | (a) CO Concentration must be at 15 percent $O_2$, dry basis. Results of this test consist of the average of the three 1-hour longer runs. |

[a]You may also use Methods 3A and 10 as options to ASTM–D6522–00 (2005). You may obtain a copy of ASTM–D6522–00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106. ASTM–D6522–00 (2005) may be used to test both CI and SI stationary RICE.
[b]You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.
[c]You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.
[75 FR 51597, Aug. 20, 2010]

**Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations and Operating Limitations**
As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

| **For each . . .** | **Complying with the requirement to . . .** | **You have demonstrated initial compliance if. . .** |
|---|---|---|
| 1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | a. Reduce CO emissions and using oxidation catalyst, and using a CPMS | i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test. |
| 2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS | i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial |

| | | |
|---|---|---|
| | | performance test. |
| 3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | a. Reduce CO emissions and not using oxidation catalyst | i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and<br>ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and<br>iii. You have recorded the approved operating parameters (if any) during the initial performance test. |
| 4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | a. Limit the concentration of CO, and not using oxidation catalyst | i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and<br>ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and<br>iii. You have recorded the approved operating parameters (if any) during the initial performance test. |
| 5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | a. Reduce CO emissions, and using a CEMS | i. You have installed a CEMS to continuously monitor CO and either $O_2$ or $CO_2$ at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and<br>ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and<br>iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period. |
| 6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more | a. Limit the concentration of CO, and using a CEMS | i. You have installed a CEMS to continuously monitor CO and either $O_2$ or $CO_2$ at the outlet of the oxidation catalyst according to the requirements in §63.6625(a); and<br>ii. You have conducted a performance evaluation of your CEMS using PS 3 |

| | | |
|---|---|---|
| than 24 hours per calendar year | | and 4A of 40 CFR part 60, appendix B; and |
| | | iii. The average concentration of CO calculated using §63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period. |
| 7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | a. Reduce formaldehyde emissions and using NSCR | i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and<br>ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and |
| | | iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test. |
| 8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | a. Reduce formaldehyde emissions and not using NSCR | i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and<br>ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and |
| | | iii. You have recorded the approved operating parameters (if any) during the initial performance test. |
| 9. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | a. Limit the concentration of formaldehyde and not using NSCR | i. The average formaldehyde concentration determined from the initial performance test is less than or equal to the formaldehyde emission limitation; and |
| | | ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and |
| | | iii. You have recorded the approved operating parameters (if any) during the initial performance test. |

| | | |
|---|---|---|
| 10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP | a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR | i. The average formaldehyde concentration, corrected to 15 percent $O_2$, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and<br>ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and |
| | | iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test. |
| 11. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP | a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR | i. The average formaldehyde concentration, corrected to 15 percent $O_2$, dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and<br>ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and |
| | | iii. You have recorded the approved operating parameters (if any) during the initial performance test. |
| 12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP | a. Reduce CO or formaldehyde emissions | i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction. |
| 13. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP | a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust | i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent $O_2$, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable. |

[76 FR 12867, Mar. 9, 2011]

**Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices**

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

| For each . . . | Complying with the requirement to . . . | You must demonstrate continuous compliance by . . . |
|---|---|---|
| 1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP | a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS | i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;[a]and<br>ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and<br>iii. Reducing these data to 4-hour rolling averages; and<br>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and |
| | | v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. |
| 2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP | a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS | i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;[a]and<br>ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and<br>iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test. |
| 3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP, existing non-emergency 4SLB stationary RICE | a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS | i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to §63.6620; and<br>ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO |

| | | |
|---|---|---|
| >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | | concentration limit; and<br>iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1. |
| 4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP | a. Reduce formaldehyde emissions and using NSCR | i. Collecting the catalyst inlet temperature data according to §63.6625(b); and |
| | | ii. Reducing these data to 4-hour rolling averages; and |
| | | iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and |
| | | iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. |
| 5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP | a. Reduce formaldehyde emissions and not using NSCR | i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and<br>ii. Reducing these data to 4-hour rolling averages; and |
| | | iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test. |
| 6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP | a. Reduce formaldehyde emissions | Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved.[a] |
| 7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250 ≤HP≤500 located at a major source of HAP | a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR | i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit;[a]and<br>ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and |
| | | iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating |

| | | |
|---|---|---|
| | | limitations for the catalyst inlet temperature; and |
| | | v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. |
| 8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250 ≤HP≤500 located at a major source of HAP | a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR | i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit;[a]and<br>ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and |
| | | iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test. |
| 9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency landfill or digester gas stationary SI RICE located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year | a. Work or Management practices | i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or<br>ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. |
| 10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than | a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE | i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as |

| | | |
|---|---|---|
| 24 hours per calendar year and are not limited use stationary RICE | exhaust, and using oxidation catalyst or NSCR | appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and |
| | | ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and |
| | | iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and |
| | | v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. |
| 11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE | a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using oxidation catalyst or NSCR | i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and |
| | | ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and |
| | | iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test. |
| 12. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year | a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using an oxidation catalyst or NSCR | i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and |
| | | ii. Collecting the catalyst inlet |

| | | |
|---|---|---|
| | | temperature data according to §63.6625(b); and |
| | | iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and |
| | | v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. |
| 13. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year | a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using an oxidation catalyst or NSCR | i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and |
| | | ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and |
| | | iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test. |

[a]After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.
[76 FR 12870, Mar. 9, 2011]

**Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports**
As stated in §63.6650, you must comply with the following requirements for reports:

| For each ... | You must submit a ... | The report must contain ... | You must submit the report ... |
|---|---|---|---|
| 1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE >300 HP located at an area source of HAP; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP and operated more than 24 hours per calendar year; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP | Compliance report | a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or<br>b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or<br>c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4) | i. Semiannually according to the requirements in §63.6650(b)(1)–(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and<br>ii. Annually according to the requirements in §63.6650(b)(6)–(9) for engines that are limited use stationary RICE subject to numerical emission limitations.<br>i. Semiannually according to the requirements in §63.6650(b).<br>i. Semiannually according to the requirements in §63.6650(b). |
| 2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis | Report | a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and | i. Annually, according to the requirements in §63.6650. |
| | | b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and | i. See item 2.a.i. |
| | | c. Any problems or errors suspected with the meters. | i. See item 2.a.i. |

[75 FR 51603, Aug. 20, 2010]

**Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.**
As stated in §63.6665, you must comply with the following applicable general provisions.

| General provisions citation | Subject of citation | Applies to subpart | Explanation |
|---|---|---|---|
| §63.1 | General applicability of the General Provisions | Yes. | |
| §63.2 | Definitions | Yes | Additional terms defined in §63.6675. |
| §63.3 | Units and abbreviations | Yes. | |
| §63.4 | Prohibited activities and circumvention | Yes. | |
| §63.5 | Construction and reconstruction | Yes. | |
| §63.6(a) | Applicability | Yes. | |
| §63.6(b)(1)–(4) | Compliance dates for new and reconstructed sources | Yes. | |
| §63.6(b)(5) | Notification | Yes. | |
| §63.6(b)(6) | [Reserved] | | |
| §63.6(b)(7) | Compliance dates for new and reconstructed area sources that become major sources | Yes. | |
| §63.6(c)(1)–(2) | Compliance dates for existing sources | Yes. | |
| §63.6(c)(3)–(4) | [Reserved] | | |
| §63.6(c)(5) | Compliance dates for existing area sources that become major sources | Yes. | |
| §63.6(d) | [Reserved] | | |
| §63.6(e) | Operation and maintenance | No. | |
| §63.6(f)(1) | Applicability of standards | No. | |
| §63.6(f)(2) | Methods for determining compliance | Yes. | |
| §63.6(f)(3) | Finding of compliance | Yes. | |
| §63.6(g)(1)–(3) | Use of alternate standard | Yes. | |
| §63.6(h) | Opacity and visible emission standards | No | Subpart ZZZZ does not contain opacity or visible emission standards. |
| §63.6(i) | Compliance extension procedures and criteria | Yes. | |
| §63.6(j) | Presidential compliance | Yes. | |

| | | | |
|---|---|---|---|
| | exemption | | |
| §63.7(a)(1)–(2) | Performance test dates | Yes | Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612. |
| §63.7(a)(3) | CAA section 114 authority | Yes. | |
| §63.7(b)(1) | Notification of performance test | Yes | Except that §63.7(b)(1) only applies as specified in §63.6645. |
| §63.7(b)(2) | Notification of rescheduling | Yes | Except that §63.7(b)(2) only applies as specified in §63.6645. |
| §63.7(c) | Quality assurance/test plan | Yes | Except that §63.7(c) only applies as specified in §63.6645. |
| §63.7(d) | Testing facilities | Yes. | |
| §63.7(e)(1) | Conditions for conducting performance tests | No. | Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620. |
| §63.7(e)(2) | Conduct of performance tests and reduction of data | Yes | Subpart ZZZZ specifies test methods at §63.6620. |
| §63.7(e)(3) | Test run duration | Yes. | |
| §63.7(e)(4) | Administrator may require other testing under section 114 of the CAA | Yes. | |
| §63.7(f) | Alternative test method provisions | Yes. | |
| §63.7(g) | Performance test data analysis, recordkeeping, and reporting | Yes. | |
| §63.7(h) | Waiver of tests | Yes. | |
| §63.8(a)(1) | Applicability of monitoring requirements | Yes | Subpart ZZZZ contains specific requirements for monitoring at §63.6625. |
| §63.8(a)(2) | Performance specifications | Yes. | |
| §63.8(a)(3) | [Reserved] | | |
| §63.8(a)(4) | Monitoring for control devices | No. | |
| §63.8(b)(1) | Monitoring | Yes. | |
| §63.8(b)(2)–(3) | Multiple effluents and multiple monitoring systems | Yes. | |
| §63.8(c)(1) | Monitoring system operation and maintenance | Yes. | |
| §63.8(c)(1)(i) | Routine and predictable SSM | Yes. | |
| §63.8(c)(1)(ii) | SSM not in Startup Shutdown | Yes. | |

| | | | |
|---|---|---|---|
| | Malfunction Plan | | |
| §63.8(c)(1)(iii) | Compliance with operation and maintenance requirements | Yes. | |
| §63.8(c)(2)–(3) | Monitoring system installation | Yes. | |
| §63.8(c)(4) | Continuous monitoring system (CMS) requirements | Yes | Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS). |
| §63.8(c)(5) | COMS minimum procedures | No | Subpart ZZZZ does not require COMS. |
| §63.8(c)(6)–(8) | CMS requirements | Yes | Except that subpart ZZZZ does not require COMS. |
| §63.8(d) | CMS quality control | Yes. | |
| §63.8(e) | CMS performance evaluation | Yes | Except for §63.8(e)(5)(ii), which applies to COMS. |
| | | Except that §63.8(e) only applies as specified in §63.6645. | |
| §63.8(f)(1)–(5) | Alternative monitoring method | Yes | Except that §63.8(f)(4) only applies as specified in §63.6645. |
| §63.8(f)(6) | Alternative to relative accuracy test | Yes | Except that §63.8(f)(6) only applies as specified in §63.6645. |
| §63.8(g) | Data reduction | Yes | Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640. |
| §63.9(a) | Applicability and State delegation of notification requirements | Yes. | |
| §63.9(b)(1)–(5) | Initial notifications | Yes | Except that §63.9(b)(3) is reserved. |
| | | Except that §63.9(b) only applies as specified in §63.6645. | |
| §63.9(c) | Request for compliance extension | Yes | Except that §63.9(c) only applies as specified in §63.6645. |
| §63.9(d) | Notification of special compliance requirements for new sources | Yes | Except that §63.9(d) only applies as specified in §63.6645. |
| §63.9(e) | Notification of performance test | Yes | Except that §63.9(e) only applies as specified in §63.6645. |

| | | | |
|---|---|---|---|
| §63.9(f) | Notification of visible emission (VE)/opacity test | No | Subpart ZZZZ does not contain opacity or VE standards. |
| §63.9(g)(1) | Notification of performance evaluation | Yes | Except that §63.9(g) only applies as specified in §63.6645. |
| §63.9(g)(2) | Notification of use of COMS data | No | Subpart ZZZZ does not contain opacity or VE standards. |
| §63.9(g)(3) | Notification that criterion for alternative to RATA is exceeded | Yes | If alternative is in use. |
| | | Except that §63.9(g) only applies as specified in §63.6645. | |
| §63.9(h)(1)–(6) | Notification of compliance status | Yes | Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved. |
| | | | Except that §63.9(h) only applies as specified in §63.6645. |
| §63.9(i) | Adjustment of submittal deadlines | Yes. | |
| §63.9(j) | Change in previous information | Yes. | |
| §63.10(a) | Administrative provisions for recordkeeping/reporting | Yes. | |
| §63.10(b)(1) | Record retention | Yes. | |
| §63.10(b)(2)(i)–(v) | Records related to SSM | No. | |
| §63.10(b)(2)(vi)–(xi) | Records | Yes. | |
| §63.10(b)(2)(xii) | Record when under waiver | Yes. | |
| §63.10(b)(2)(xiii) | Records when using alternative to RATA | Yes | For CO standard if using RATA alternative. |
| §63.10(b)(2)(xiv) | Records of supporting documentation | Yes. | |
| §63.10(b)(3) | Records of applicability determination | Yes. | |
| §63.10(c) | Additional records for sources using CEMS | Yes | Except that §63.10(c)(2)–(4) and (9) are reserved. |
| §63.10(d)(1) | General reporting requirements | Yes. | |
| §63.10(d)(2) | Report of performance test results | Yes. | |

| | | | |
|---|---|---|---|
| §63.10(d)(3) | Reporting opacity or VE observations | No | Subpart ZZZZ does not contain opacity or VE standards. |
| §63.10(d)(4) | Progress reports | Yes. | |
| §63.10(d)(5) | Startup, shutdown, and malfunction reports | No. | |
| §63.10(e)(1) and (2)(i) | Additional CMS Reports | Yes. | |
| §63.10(e)(2)(ii) | COMS-related report | No | Subpart ZZZZ does not require COMS. |
| §63.10(e)(3) | Excess emission and parameter exceedances reports | Yes. | Except that §63.10(e)(3)(i) (C) is reserved. |
| §63.10(e)(4) | Reporting COMS data | No | Subpart ZZZZ does not require COMS. |
| §63.10(f) | Waiver for recordkeeping/reporting | Yes. | |
| §63.11 | Flares | No. | |
| §63.12 | State authority and delegations | Yes. | |
| §63.13 | Addresses | Yes. | |
| §63.14 | Incorporation by reference | Yes. | |
| §63.15 | Availability of information | Yes. | |

[75 FR 9688, Mar. 3, 2010]

**ATTACHMENT E**

**Title 40: Protection of Environment**

**Subpart JJJJ—Standards of Performance for Stationary Spark Ignition Internal Combustion Engines**

**Source:** 73 FR 3591, Jan. 18, 2008, unless otherwise noted.

**What This Subpart Covers**
**§ 60.4230 Am I subject to this subpart?**

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (6) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.
(1) Manufacturers of stationary SI ICE with a maximum engine power less than or equal to 19 kilowatt (KW) (25 horsepower (HP)) that are manufactured on or after July 1, 2008.
(2) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline fueled or that are rich burn engines fueled by liquefied petroleum gas (LPG), where the date of manufacture is:
(i) On or after July 1, 2008; or
(ii) On or after January 1, 2009, for emergency engines.
(3) Manufacturers of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are not gasoline fueled and are not rich burn engines fueled by LPG, where the manufacturer participates in the voluntary manufacturer certification program described in this subpart and where the date of manufacture is:
(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
(ii) On or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;
(iii) On or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or
(iv) On or after January 1, 2009, for emergency engines.
(4) Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:
(i) On or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
(ii) on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP;
(iii) on or after July 1, 2008, for engines with a maximum engine power less than 500 HP; or
(iv) on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 HP).
(5) Owners and operators of stationary SI ICE that are modified or reconstructed after June 12, 2006, and any person that modifies or reconstructs any stationary SI ICE after June 12, 2006.
(6) The provisions of §60.4236 of this subpart are applicable to all owners and operators of stationary SI ICE that commence construction after June 12, 2006.
(b) The provisions of this subpart are not applicable to stationary SI ICE being tested at an engine test cell/stand.
(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.
(d) For the purposes of this subpart, stationary SI ICE using alcohol-based fuels are considered gasoline engines.

(e) Stationary SI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR parts 90 and 1048, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.
(f) Owners and operators of facilities with internal combustion engines that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.
[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37972, June 28, 2011]

**Emission Standards for Manufacturers**
**§ 60.4231 What emission standards must I meet if I am a manufacturer of stationary SI internal combustion engines or equipment containing such engines?**

(a) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008 to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as follows:

| **If engine displacement is * * *** | **and manufacturing dates are * * *** | **the engine must meet emission standards and related requirements for nonhandheld engines under * * *** |
|---|---|---|
| (1) below 225 cc | July 1, 2008 to December 31, 2011 | 40 CFR part 90. |
| (2) below 225 cc | January 1, 2012 or later | 40 CFR part 1054. |
| (3) at or above 225 cc | July 1, 2008 to December 31, 2010 | 40 CFR part 90. |
| (4) at or above 225 cc | January 1, 2011 or later | 40 CFR part 1054. |

(b) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that use gasoline and that are manufactured on or after the applicable date in §60.4230(a)(2), or manufactured on or after the applicable date in §60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE with a maximum engine power greater than 25 HP and less than 130 HP that are manufactured on or after the applicable date in §60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cubic centimeters (cc) to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate.
(c) Stationary SI internal combustion engine manufacturers must certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) (except emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) that are rich burn engines that use LPG and that are manufactured on or after the applicable date in §60.4230(a)(2), or manufactured on or after the applicable date in §60.4230(a)(4) for emergency stationary ICE with a maximum engine power greater than or equal to 130 HP, to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers must certify their emergency stationary SI ICE with a maximum engine power greater than 25 HP and less than 130 HP that are manufactured on or after the applicable date in §60.4230(a)(4) to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, and other requirements for new nonroad SI

engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate.
(d) Stationary SI internal combustion engine manufacturers who choose to certify their stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) under the voluntary manufacturer certification program described in this subpart must certify those engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. Stationary SI internal combustion engine manufacturers who choose to certify their emergency stationary SI ICE greater than 25 HP and less than 130 HP, must certify those engines to the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, for new nonroad SI engines in 40 CFR part 90. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards for new nonroad SI engines in 40 CFR part 90 or 1054, as appropriate. For stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG and emergency stationary ICE with a maximum engine power greater than 25 HP and less than 130 HP) manufactured prior to January 1, 2011, manufacturers may choose to certify these engines to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP.
(e) Stationary SI internal combustion engine manufacturers who choose to certify their stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) under the voluntary manufacturer certification program described in this subpart must certify those engines to the emission standards in Table 1 to this subpart. Stationary SI internal combustion engine manufacturers may certify their stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) that are lean burn engines that use LPG to the certification emission standards for new nonroad SI engines in 40 CFR part 1048. For stationary SI ICE with a maximum engine power greater than or equal to 100 HP (75 KW) and less than 500 HP (373 KW) manufactured prior to January 1, 2011, and for stationary SI ICE with a maximum engine power greater than or equal to 500 HP (373 KW) manufactured prior to July 1, 2010, manufacturers may choose to certify these engines to the certification emission standards for new nonroad SI engines in 40 CFR part 1048 applicable to engines that are not severe duty engines.
(f) Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, to the extent they apply to equipment manufacturers.
(g) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary SI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (e) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed stationary SI ICE.
[73 FR 3591, Jan. 18, 2008, as amended by 73 FR 59175, Oct. 8, 2008; 76 FR 37973, June 28, 2011]

**§ 60.4232 How long must my engines meet the emission standards if I am a manufacturer of stationary SI internal combustion engines?**

Engines manufactured by stationary SI internal combustion engine manufacturers must meet the emission standards as required in §60.4231 during the certified emissions life of the engines.

**Emission Standards for Owners and Operators**
**§ 60.4233 What emission standards must I meet if I am an owner or operator of a stationary SI internal combustion engine?**

(a) Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, must comply with the emission standards in §60.4231(a) for their stationary SI ICE.

(b) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that use gasoline must comply with the emission standards in §60.4231(b) for their stationary SI ICE.
(c) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in §60.4230(a)(4) that are rich burn engines that use LPG must comply with the emission standards in §60.4231(c) for their stationary SI ICE.
(d) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c) for their non-emergency stationary SI ICE and with the emission standards in Table 1 to this subpart for their emergency stationary SI ICE. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards in Table 1 to this subpart applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may optionally choose to meet those standards.
(e) Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.
(f) Owners and operators of any modified or reconstructed stationary SI ICE subject to this subpart must meet the requirements as specified in paragraphs (f)(1) through (5) of this section.
(1) Owners and operators of stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with emission standards in §60.4231(a) for their stationary SI ICE. Engines with a date of manufacture prior to July 1, 2008 must comply with the emission standards specified in §60.4231(a) applicable to engines manufactured on July 1, 2008.
(2) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline engines and are modified or reconstructed after June 12, 2006, must comply with the emission standards in §60.4231(b) for their stationary SI ICE. Engines with a date of manufacture prior to July 1, 2008 (or January 1, 2009 for emergency engines) must comply with the emission standards specified in §60.4231(b) applicable to engines manufactured on July 1, 2008 (or January 1, 2009 for emergency engines).
(3) Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are rich burn engines that use LPG, that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in §60.4231(c). Engines with a date of manufacture prior to July 1, 2008 (or January 1, 2009 for emergency engines) must comply with the emission standards specified in §60.4231(c) applicable to engines manufactured on July 1, 2008 (or January 1, 2009 for emergency engines).
(4) Owners and operators of stationary SI natural gas and lean burn LPG engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (d) or (e) of this section, except that such owners and operators of non-emergency engines and emergency engines greater than or equal to 130 HP must meet a nitrogen oxides ($NO_X$) emission standard of 3.0 grams per HP-hour (g/HP-hr), a CO emission standard of 4.0 g/HP-hr (5.0 g/HP-hr for non-emergency engines less than 100 HP), and a volatile organic compounds (VOC) emission standard of 1.0 g/HP-hr, or a $NO_X$emission standard of 250 ppmvd at 15 percent oxygen ($O_2$), a CO emission standard 540 ppmvd at 15 percent $O_2$(675 ppmvd at 15 percent $O_2$for non-emergency engines less than 100 HP), and a VOC emission standard of 86 ppmvd at 15 percent $O_2$, where the date of manufacture of the engine is:
(i) Prior to July 1, 2007, for non-emergency engines with a maximum engine power greater than or equal to 500 HP (except lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
(ii) Prior to July 1, 2008, for non-emergency engines with a maximum engine power less than 500 HP;

(iii) Prior to January 1, 2009, for emergency engines;
(iv) Prior to January 1, 2008, for non-emergency lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP.
(5) Owners and operators of stationary SI landfill/digester gas ICE engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in paragraph (e) of this section for stationary landfill/digester gas engines. Engines with maximum engine power less than 500 HP and a date of manufacture prior to July 1, 2008 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE with a maximum engine power less than 500 HP manufactured on July 1, 2008. Engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines greater than or equal to 500 HP and less than 1,350 HP) and a date of manufacture prior to July 1, 2007 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE with a maximum engine power greater than or equal to 500 HP (except lean burn engines greater than or equal to 500 HP and less than 1,350 HP) manufactured on July 1, 2007. Lean burn engines greater than or equal to 500 HP and less than 1,350 HP with a date of manufacture prior to January 1, 2008 must comply with the emission standards specified in paragraph (e) of this section for stationary landfill/digester gas ICE that are lean burn engines greater than or equal to 500 HP and less than 1,350 HP and manufactured on January 1, 2008.
(g) Owners and operators of stationary SI wellhead gas ICE engines may petition the Administrator for approval on a case-by-case basis to meet emission standards no less stringent than the emission standards that apply to stationary emergency SI engines greater than 25 HP and less than 130 HP due to the presence of high sulfur levels in the fuel, as specified in Table 1 to this subpart. The request must, at a minimum, demonstrate that the fuel has high sulfur levels that prevent the use of aftertreatment controls and also that the owner has reasonably made all attempts possible to obtain an engine that will meet the standards without the use of aftertreatment controls. The petition must request the most stringent standards reasonably applicable to the engine using the fuel.
(h) Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in paragraph (e) of this section.
[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37973, June 28, 2011]

**§ 60.4234 How long must I meet the emission standards if I am an owner or operator of a stationary SI internal combustion engine?**

Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.

**Other Requirements for Owners and Operators**
**§ 60.4235 What fuel requirements must I meet if I am an owner or operator of a stationary SI gasoline fired internal combustion engine subject to this subpart?**

Owners and operators of stationary SI ICE subject to this subpart that use gasoline must use gasoline that meets the per gallon sulfur limit in 40 CFR 80.195.

**§ 60.4236 What is the deadline for importing or installing stationary SI ICE produced in previous model years?**

(a) After July 1, 2010, owners and operators may not install stationary SI ICE with a maximum engine power of less than 500 HP that do not meet the applicable requirements in §60.4233.
(b) After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in §60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in §60.4233 may not be installed after January 1, 2010.

(c) For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.
(d) In addition to the requirements specified in §§60.4231 and 60.4233, it is prohibited to import stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn LPG SI ICE, and stationary gasoline SI ICE that do not meet the applicable requirements specified in paragraphs (a), (b), and (c) of this section, after the date specified in paragraph (a), (b), and (c) of this section.
(e) The requirements of this section do not apply to owners and operators of stationary SI ICE that have been modified or reconstructed, and they do not apply to engines that were removed from one existing location and reinstalled at a new location.

**§ 60.4237 What are the monitoring requirements if I am an owner or operator of an emergency stationary SI internal combustion engine?**

(a) Starting on July 1, 2010, if the emergency stationary SI internal combustion engine that is greater than or equal to 500 HP that was built on or after July 1, 2010, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.
(b) Starting on January 1, 2011, if the emergency stationary SI internal combustion engine that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter.
(c) If you are an owner or operator of an emergency stationary SI internal combustion engine that is less than 130 HP, was built on or after July 1, 2008, and does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter upon startup of your emergency engine.

**Compliance Requirements for Manufacturers**
**§ 60.4238 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines ≤19 KW (25 HP) or a manufacturer of equipment containing such engines?**

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(a) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.
[73 FR 59176, Oct. 8, 2008]

**§ 60.4239 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that use gasoline or a manufacturer of equipment containing such engines?**

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(b) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.
[73 FR 59176, Oct. 8, 2008]

**§ 60.4240 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines >19 KW (25 HP) that are rich burn engines that use LPG or a manufacturer of equipment containing such engines?**

Stationary SI internal combustion engine manufacturers who are subject to the emission standards specified in §60.4231(c) must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must test their engines as specified in that part. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of stationary SI emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 emission standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.
[73 FR 59176, Oct. 8, 2008]

**§ 60.4241 What are my compliance requirements if I am a manufacturer of stationary SI internal combustion engines participating in the voluntary certification program or a manufacturer of equipment containing such engines?**

(a) Manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to certify their engines to the emission standards in §60.4231(d) or (e), as applicable, under the voluntary certification program described in this subpart. Manufacturers who certify their engines under the voluntary certification program must meet the requirements as specified in paragraphs (b) through (g) of this section. In addition, manufacturers of stationary SI internal combustion engines who choose to certify their engines under the voluntary certification program, must also meet the requirements as specified in §60.4247.
(b) Manufacturers of engines other than those certified to standards in 40 CFR part 90 or 40 CFR part 1054 must certify their stationary SI ICE using the certification procedures required in 40 CFR part 1048, subpart C, and must follow the same test procedures that apply to large SI nonroad engines under 40 CFR part 1048, but must use the D–1 cycle of International Organization of Standardization 8178–4: 1996(E) (incorporated by reference, see 40 CFR 60.17) or the test cycle requirements specified in Table 3 to 40 CFR 1048.505, except that Table 3 of 40 CFR 1048.505 applies to high load engines only. Stationary SI internal combustion engine manufacturers who certify their stationary SI ICE with a maximum engine power less than or equal to 30 KW (40 HP) with a total displacement less than or equal to 1,000 cc to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 90 or 40 CFR part 1054, and manufacturers of emergency engines that are greater than 25 HP and less than 130 HP who meet the Phase 1 standards in 40 CFR 90.103, applicable to class II engines, must certify their stationary SI ICE using the certification procedures required in 40 CFR part 90, subpart B, or 40 CFR part 1054, subpart C, as applicable, and must test their engines as specified in those parts. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, subpart C, to the extent they apply to equipment manufacturers.
(c) Certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, is voluntary, but manufacturers who decide to certify are subject to all of the requirements indicated in this subpart with regard to the engines included in their certification. Manufacturers must clearly label their stationary SI engines as certified or non-certified engines.
(d) Manufacturers of natural gas fired stationary SI ICE who conduct voluntary certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, must certify their engines for operation using fuel that meets the definition of pipeline-quality natural gas. The fuel used for certifying stationary SI natural gas engines must meet the definition of pipeline-quality natural gas as described in §60.4248. In addition, the manufacturer must provide information to the owner and operator of the

certified stationary SI engine including the specifications of the pipeline-quality natural gas to which the engine is certified and what adjustments the owner or operator must make to the engine when installed in the field to ensure compliance with the emission standards.
(e) Manufacturers of stationary SI ICE that are lean burn engines fueled by LPG who conduct voluntary certification of stationary SI ICE to the emission standards specified in §60.4231(d) or (e), as applicable, must certify their engines for operation using fuel that meets the specifications in 40 CFR 1065.720.
(f) Manufacturers may certify their engines for operation using gaseous fuels in addition to pipeline-quality natural gas; however, the manufacturer must specify the properties of that fuel and provide testing information showing that the engine will meet the emission standards specified in §60.4231(d) or (e), as applicable, when operating on that fuel. The manufacturer must also provide instructions for configuring the stationary engine to meet the emission standards on fuels that do not meet the pipeline-quality natural gas definition. The manufacturer must also provide information to the owner and operator of the certified stationary SI engine regarding the configuration that is most conducive to reduced emissions where the engine will be operated on gaseous fuels with different quality than the fuel that it was certified to.
(g) A stationary SI engine manufacturer may certify an engine family solely to the standards applicable to landfill/digester gas engines as specified in §60.4231(d) or (e), as applicable, but must certify their engines for operation using landfill/digester gas and must add a permanent label stating that the engine is for use only in landfill/digester gas applications. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).
(h) For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.
(i) For engines being certified to the voluntary certification standards in Table 1 of this subpart, the VOC measurement shall be made by following the procedures in 40 CFR 1065.260 and 1065.265 in order to determine the total NMHC emissions by using a flame-ionization detector and non-methane cutter. As an alternative to the nonmethane cutter, manufacturers may use a gas chromatograph as allowed under 40 CFR 1065.267 and may measure ethane, as well as methane, for excluding such levels from the total VOC measurement.
[73 FR 3591, Jan. 18, 2008, as amended by 73 FR 59176, Oct. 8, 2008; 76 FR 37974, June 28, 2011]

**§ 60.4242 What other requirements must I meet if I am a manufacturer of stationary SI internal combustion engines or equipment containing stationary SI internal combustion engines or a manufacturer of equipment containing such engines?**

(a) Stationary SI internal combustion engine manufacturers must meet the provisions of 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054, as applicable, as well as 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1048 or 1054, except that engines certified pursuant to the voluntary certification procedures in §60.4241 are subject only to the provisions indicated in §60.4247 and are permitted to provide instructions to owners and operators allowing for deviations from certified configurations, if such deviations are consistent with the provisions of paragraphs §60.4241(c) through (f). Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060, as applicable. Labels on engines certified to 40 CFR part 1048 must refer to stationary engines, rather than or in addition to nonroad engines, as appropriate.
(b) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054 for that model year may certify any such family that contains both nonroad and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts. This provision also applies to equipment or component manufacturers certifying to standards under 40 CFR part 1060.
(c) Manufacturers of engine families certified to 40 CFR part 1048 may meet the labeling requirements referred to in paragraph (a) of this section for stationary SI ICE by either adding a separate label containing the information required in paragraph (a) of this section or by adding the words “and stationary” after the word “nonroad” to the label.
(d) For all engines manufactured on or after January 1, 2011, and for all engines with a maximum engine power greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, a stationary SI engine manufacturer that certifies an engine family solely to the standards applicable to emergency

engines must add a permanent label stating that the engines in that family are for emergency use only. The label must be added according to the labeling requirements specified in 40 CFR 1048.135(b).
(e) All stationary SI engines subject to mandatory certification that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230. Stationary SI engines subject to standards in 40 CFR part 90 may use the provisions in 40 CFR 90.909. Manufacturers of stationary engines with a maximum engine power greater than 25 HP that are not certified to standards and other requirements under 40 CFR part 1048 are subject to the labeling provisions of 40 CFR 1048.20 pertaining to excluded stationary engines.
(f) For manufacturers of gaseous-fueled stationary engines required to meet the warranty provisions in 40 CFR 90.1103 or 1054.120, we may establish an hour-based warranty period equal to at least the certified emissions life of the engines (in engine operating hours) if we determine that these engines are likely to operate for a number of hours greater than the applicable useful life within 24 months. We will not approve an alternate warranty under this paragraph (f) for nonroad engines. An alternate warranty period approved under this paragraph (f) will be the specified number of engine operating hours or two years, whichever comes first. The engine manufacturer shall request this alternate warranty period in its application for certification or in an earlier submission. We may approve an alternate warranty period for an engine family subject to the following conditions:
(1) The engines must be equipped with non-resettable hour meters.
(2) The engines must be designed to operate for a number of hours substantially greater than the applicable certified emissions life.
(3) The emission-related warranty for the engines may not be shorter than any published warranty offered by the manufacturer without charge for the engines. Similarly, the emission-related warranty for any component shall not be shorter than any published warranty offered by the manufacturer without charge for that component.
[73 FR 3591, Jan. 18, 2008, as amended by 73 FR 59177, Oct. 8, 2008]

**Compliance Requirements for Owners and Operators**
**§ 60.4243 What are my compliance requirements if I am an owner or operator of a stationary SI internal combustion engine?**

(a) If you are an owner or operator of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in §60.4233(a) through (c), you must comply by purchasing an engine certified to the emission standards in §60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, you must meet one of the requirements specified in (a)(1) and (2) of this section.
(1) If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.
(2) If you do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, your engine will be considered a non-certified engine, and you must demonstrate compliance according to (a)(2)(i) through (iii) of this section, as appropriate.
(i) If you are an owner or operator of a stationary SI internal combustion engine less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required if you are an owner or operator.
(ii) If you are an owner or operator of a stationary SI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup to demonstrate compliance.

(iii) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.
(b) If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) and (2) of this section.
(1) Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a) of this section.
(2) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(d) or (e) and according to the requirements specified in §60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of this section.
(i) If you are an owner or operator of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance.
(ii) If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.
(c) If you are an owner or operator of a stationary SI internal combustion engine that must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according paragraph (b)(2)(i) or (ii) of this section, except that if you comply according to paragraph (b)(2)(i) of this section, you demonstrate that your non-certified engine complies with the emission standards specified in §60.4233(f).
(d) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.
(e) Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.
(f) If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in this section, but you are not required to conduct subsequent performance testing unless the stationary engine

is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).
(g) It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.
(h) If you are an owner/operator of an stationary SI internal combustion engine with maximum engine power greater than or equal to 500 HP that is manufactured after July 1, 2007 and before July 1, 2008, and must comply with the emission standards specified in sections 60.4233(b) or (c), you must comply by one of the methods specified in paragraphs (h)(1) through (h)(4) of this section.
(1) Purchasing an engine certified according to 40 CFR part 1048. The engine must be installed and configured according to the manufacturer's specifications.
(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
(3) Keeping records of engine manufacturer data indicating compliance with the standards.
(4) Keeping records of control device vendor data indicating compliance with the standards.
(i) If you are an owner or operator of a modified or reconstructed stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(f), you must demonstrate compliance according to one of the methods specified in paragraphs (i)(1) or (2) of this section.
(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4233(f), as applicable.
(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4244. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.
[73 FR 3591, Jan. 18, 2008, as amended at 76 FR 37974, June 28, 2011]

**Testing Requirements for Owners and Operators**
**§ 60.4244 What test methods and other procedures must I use if I am an owner or operator of a stationary SI internal combustion engine?**

Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.
(a) Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to this subpart.
(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.
(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.
(d) To determine compliance with the $NO_X$ mass per unit output emission limitation, convert the concentration of $NO_X$ in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \qquad \text{(Eq. 1)}$$

Where:
ER = Emission rate of $NO_X$ in g/HP-hr.
$C_d$ = Measured $NO_X$ concentration in parts per million by volume (ppmv).
$1.912 \times 10^{-3}$ = Conversion constant for ppm $NO_X$ to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.
T = Time of test run, in hours.
HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

(e) To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \qquad (Eq. 2)$$

Where:
ER = Emission rate of CO in g/HP-hr.
Cd= Measured CO concentration in ppmv.
$1.164 \times 10^{-3}$ = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.
T = Time of test run, in hours.
HP-hr = Brake work of the engine, in HP-hr.
(f) For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \qquad (Eq. 3)$$

Where:
ER = Emission rate of VOC in g/HP-hr.
Cd= VOC concentration measured as propane in ppmv.
$1.833 \times 10^{-3}$ = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.
Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.
T = Time of test run, in hours.
HP-hr = Brake work of the engine, in HP-hr.
(g) If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \qquad (Eq. 4)$$

Where:
RFi= Response factor of compound i when measured with EPA Method 25A.
$C_M$i= Measured concentration of compound i in ppmv as carbon.
$C_A$i= True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \qquad (Eq. 5)$$

Where:
$Ci_{corr}$= Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.
$Ci_{meas}$= Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Peq} = 0.6098 \times C_{icorr} \qquad (Eq. 6)$$

Where:
CPeq= Concentration of compound i in mg of propane equivalent per DSCM.

**Notification, Reports, and Records for Owners and Operators**
**§ 60.4245 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary SI internal combustion engine?**

Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.
(a) Owners and operators of all stationary SI ICE must keep records of the information in paragraphs (a)(1) through (4) of this section.

(1) All notifications submitted to comply with this subpart and all documentation supporting any notification.
(2) Maintenance conducted on the engine.
(3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
(4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.
(b) For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.
(c) Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in §60.4231 must submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (c)(1) through (5) of this section.
(1) Name and address of the owner or operator;
(2) The address of the affected source;
(3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
(4) Emission control equipment; and
(5) Fuel used.
(d) Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed.
[73 FR 3591, Jan. 18, 2008, as amended by 73 FR 59177, Oct. 8, 2008]

**General Provisions**
**§ 60.4246 What parts of the General Provisions apply to me?**

Table 3 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

**Mobile Source Provisions**
**§ 60.4247 What parts of the mobile source provisions apply to me if I am a manufacturer of stationary SI internal combustion engines or a manufacturer of equipment containing such engines?**

(a) Manufacturers certifying to emission standards in 40 CFR part 90, including manufacturers certifying emergency engines below 130 HP, must meet the provisions of 40 CFR part 90. Manufacturers certifying to emission standards in 40 CFR part 1054 must meet the provisions of 40 CFR part 1054. Manufacturers of equipment containing stationary SI internal combustion engines meeting the provisions of 40 CFR part 1054 must meet the provisions of 40 CFR part 1060 to the extent they apply to equipment manufacturers.
(b) Manufacturers required to certify to emission standards in 40 CFR part 1048 must meet the provisions of 40 CFR part 1048. Manufacturers certifying to emission standards in 40 CFR part 1048 pursuant to the voluntary certification program must meet the requirements in Table 4 to this subpart as well as the standards in 40 CFR 1048.101.
(c) For manufacturers of stationary SI internal combustion engines participating in the voluntary certification program and certifying engines to Table 1 to this subpart, Table 4 to this subpart shows which

parts of the mobile source provisions in 40 CFR parts 1048, 1065, and 1068 apply to you. Compliance with the deterioration factor provisions under 40 CFR 1048.205(n) and 1048.240 will be required for engines built new on and after January 1, 2010. Prior to January 1, 2010, manufacturers of stationary internal combustion engines participating in the voluntary certification program have the option to develop their own deterioration factors based on an engineering analysis.
[73 FR 3591, Jan. 18, 2008, as amended by 73 FR 59177, Oct. 8, 2008]

**Definitions**
**§ 60.4248 What definitions apply to this subpart?**

As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in subpart A of this part.
*Certified emissions life* means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) are given in 40 CFR 90.105, 40 CFR 1054.107, and 40 CFR 1060.101, as appropriate. The values for certified emissions life for stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) certified to 40 CFR part 1048 are given in 40 CFR 1048.101(g). The certified emissions life for stationary SI ICE with a maximum engine power greater than 75 KW (100 HP) certified under the voluntary manufacturer certification program of this subpart is 5,000 hours or 7 years, whichever comes first. You may request in your application for certification that we approve a shorter certified emissions life for an engine family. We may approve a shorter certified emissions life, in hours of engine operation but not in years, if we determine that these engines will rarely operate longer than the shorter certified emissions life. If engines identical to those in the engine family have already been produced and are in use, your demonstration must include documentation from such in-use engines. In other cases, your demonstration must include an engineering analysis of information equivalent to such in-use data, such as data from research engines or similar engine models that are already in production. Your demonstration must also include any overhaul interval that you recommend, any mechanical warranty that you offer for the engine or its components, and any relevant customer design specifications. Your demonstration may include any other relevant information. The certified emissions life value may not be shorter than any of the following:
(i) 1,000 hours of operation.
(ii) Your recommended overhaul interval.
(iii) Your mechanical warranty for the engine.
*Certified stationary internal combustion engine* means an engine that belongs to an engine family that has a certificate of conformity that complies with the emission standards and requirements in this part, or of 40 CFR part 90, 40 CFR part 1048, or 40 CFR part 1054, as appropriate.
*Combustion turbine* means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.
*Compression ignition* means relating to a type of stationary internal combustion engine that is not a spark ignition engine.
*Date of manufacture* means one of the following things:
(1) For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.
(2) For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.
(3) Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

*Diesel fuel* means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.
*Digester gas* means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and carbon dioxide (CO2).
*Emergency stationary internal combustion engine* means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary SI ICE used for peak shaving are not considered emergency stationary ICE. Stationary ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.
*Engine manufacturer* means the manufacturer of the engine. See the definition of “manufacturer” in this section.
*Four-stroke engine* means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.
*Freshly manufactured engine* means an engine that has not been placed into service. An engine becomes freshly manufactured when it is originally produced.
*Gasoline* means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.
*Installed* means the engine is placed and secured at the location where it is intended to be operated.
*Landfill gas* means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and $CO_2$.
*Lean burn engine* means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.
*Liquefied petroleum gas* means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining or natural gas production.
*Manufacturer* has the meaning given in section 216(1) of the Clean Air Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for resale.
*Maximum engine power* means maximum engine power as defined in 40 CFR 1048.801.
*Model year* means the calendar year in which an engine is manufactured (see “date of manufacture”), except as follows:
(1) Model year means the annual new model production period of the engine manufacturer in which an engine is manufactured (see “date of manufacture”), if the annual new model production period is different than the calendar year and includes January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.
(2) For an engine that is converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was manufactured (see “date of manufacture”).
*Natural gas* means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.
*Other internal combustion engine* means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.
*Pipeline-quality natural gas* means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth's surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions, and which is provided by a supplier through a pipeline. Pipeline-quality natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 950 and 1,100 British thermal units per standard cubic foot.

*Rich burn engine* means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to June 12, 2006, with passive emission control technology for $NO_X$(such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.
*Rotary internal combustion engine* means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.
*Spark ignition* means relating to either: a gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.
*Stationary internal combustion engine* means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle, aircraft, or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.
*Stationary internal combustion engine test cell/stand* means an engine test cell/stand, as defined in 40 CFR part 63, subpart PPPPP, that tests stationary ICE.
*Stoichiometric* means the theoretical air-to-fuel ratio required for complete combustion.
*Subpart* means 40 CFR part 60, subpart JJJJ.
*Two-stroke engine* means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.
*Volatile organic compounds* means volatile organic compounds as defined in 40 CFR 51.100(s).
*Voluntary certification program* means an optional engine certification program that manufacturers of stationary SI internal combustion engines with a maximum engine power greater than 19 KW (25 HP) that do not use gasoline and are not rich burn engines that use LPG can choose to participate in to certify their engines to the emission standards in §60.4231(d) or (e), as applicable.
[73 FR 3591, Jan. 18, 2008, as amended by 73 FR 59177, Oct. 8, 2008; 76 FR 37974, June 28, 2011]

**Table 1 to Subpart JJJJ of Part 60—$NO_X$, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), Stationary SI Landfill/Digester Gas Engines, and Stationary Emergency Engines >25 HP**

| Engine type and fuel | Maximum engine power | Manufacture date | Emission standards[a] | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | g/HP-hr | | | ppmvd at 15% $O_2$ | | |
| | | | $NO_X$ | CO | VOC[d] | $NO_X$ | CO | VOC[d] |
| Non-Emergency SI Natural Gas[b] and Non-Emergency SI Lean Burn LPG[b] | 100≤HP<500 | 7/1/2008 | 2.0 | 4.0 | 1.0 | 160 | 540 | 86 |
| | | 1/1/2011 | 1.0 | 2.0 | 0.7 | 82 | 270 | 60 |
| Non-Emergency SI Lean Burn Natural Gas and LPG | 500≤HP<1,350 | 1/1/2008 | 2.0 | 4.0 | 1.0 | 160 | 540 | 86 |
| | | 7/1/2010 | 1.0 | 2.0 | 0.7 | 82 | 270 | 60 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn 500≤HP<1,350) | HP≥500 | 7/1/2007 | 2.0 | 4.0 | 1.0 | 160 | 540 | 86 |
| | HP≥500 | 7/1/2010 | 1.0 | 2.0 | 0.7 | 82 | 270 | 60 |
| Landfill/Digester Gas (except lean burn 500≤HP<1,350) | HP<500 | 7/1/2008 | 3.0 | 5.0 | 1.0 | 220 | 610 | 80 |
| | | 1/1/2011 | 2.0 | 5.0 | 1.0 | 150 | 610 | 80 |
| | HP≥500 | 7/1/2007 | 3.0 | 5.0 | 1.0 | 220 | 610 | 80 |
| | | 7/1/2010 | 2.0 | 5.0 | 1.0 | 150 | 610 | 80 |
| Landfill/Digester Gas Lean Burn | 500≤HP<1,350 | 1/1/2008 | 3.0 | 5.0 | 1.0 | 220 | 610 | 80 |
| | | 7/1/2010 | 2.0 | 5.0 | 1.0 | 150 | 610 | 80 |
| Emergency | 25<HP<130 | 1/1/2009 | [c]10 | 387 | N/A | N/A | N/A | N/A |
| | HP≥130 | | 2.0 | 4.0 | 1.0 | 160 | 540 | 86 |

[a]Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O2.
[b]Owners and operators of new or reconstructed non-emergency lean burn SI stationary engines with a site rating of greater than or equal to 250 brake HP located at a major source that are meeting the requirements of 40 CFR part 63, subpart ZZZZ, Table 2a do not have to comply with the CO emission standards of Table 1 of this subpart.
[c]The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NOX + HC.
[d]For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.
[76 FR 37975, June 28, 2011]

**Table 2 to Subpart JJJJ of Part 60—Requirements for Performance Tests**
As stated in §60.4244, you must comply with the following requirements for performance tests within 10 percent of 100 percent peak (or the highest achievable) load:

| For each | Complying with the requirement to | You must | Using | According to the following requirements |
|---|---|---|---|---|
| 1. Stationary SI internal combustion engine demonstrating compliance according to §60.4244 | a. limit the concentration of $NO_X$ in the stationary SI internal combustion engine exhaust | i. Select the sampling port location and the number of traverse points; | (1) Method 1 or 1A of 40 CFR part 60, Appendix A or ASTM Method D6522–00(2005)[a] | (a) If using a control device, the sampling site must be located at the outlet of the control device. |
| | | ii. Determine the $O_2$ concentration of the stationary internal combustion engine exhaust at the sampling port location; | (2) Method 3, 3A, or 3B[b] of 40 CFR part 60, appendix A or ASTM Method D6522–00(2005)[a] | (b) Measurements to determine $O_2$ concentration must be made at the same time as the measurements for $NO_X$ concentration. |

| | | | | |
|---|---|---|---|---|
| | | iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust; | (3) Method 2 or 19 of 40 CFR part 60 | |
| | | iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and | (4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17) | (c) Measurements to determine moisture must be made at the same time as the measurement for $NO_X$concentration. |
| | | v. Measure $NO_X$at the exhaust of the stationary internal combustion engine | (5) Method 7E of 40 CFR part 60, appendix A, Method D6522–00(2005)[a], Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17) | (d) Results of this test consist of the average of the three 1-hour or longer runs. |
| | b. limit the concentration of CO in the stationary SI internal combustion engine exhaust | i. Select the sampling port location and the number of traverse points; | (1) Method 1 or 1A of 40 CFR part 60, Appendix A or ASTM Method D6522–00(2005)[a] | (a) If using a control device, the sampling site must be located at the outlet of the control device. |
| | | ii. Determine the $O_2$concentration of the stationary internal combustion engine exhaust at the sampling port location; | (2) Method 3, 3A, or 3B[b]of 40 CFR part 60, appendix A or ASTM Method D6522–00(2005)[a] | (b) Measurements to determine $O_2$concentration must be made at the same time as the measurements for CO concentration. |
| | | iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust; | (3) Method 2 or 19 of 40 CFR part 60 | |
| | | iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and | (4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17) | (c) Measurements to determine moisture must be made at the same time as the measurement for CO concentration. |

| | | | | |
|---|---|---|---|---|
| | | v. Measure CO at the exhaust of the stationary internal combustion engine | (5) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00(2005)[a], Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17) | (d) Results of this test consist of the average of the three 1-hour or longer runs. |
| | c. limit the concentration of VOC in the stationary SI internal combustion engine exhaust | i. Select the sampling port location and the number of traverse points; | (1) Method 1 or 1A of 40 CFR part 60, Appendix A | (a) If using a control device, the sampling site must be located at the outlet of the control device. |
| | | ii. Determine the $O_2$concentration of the stationary internal combustion engine exhaust at the sampling port location; | (2) Method 3, 3A, or 3B[b]of 40 CFR part 60, appendix A or ASTM Method D6522–00(2005)[a] | (b) Measurements to determine $O_2$concentration must be made at the same time as the measurements for VOC concentration. |
| | | iii. If necessary, determine the exhaust flowrate of the stationary internal combustion engine exhaust; | (3) Method 2 or 19 of 40 CFR part 60 | |
| | | iv. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and | (4) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17) | (c) Measurements to determine moisture must be made at the same time as the measurement for VOC concentration. |
| | | v. Measure VOC at the exhaust of the stationary internal combustion engine | (5) Methods 25A and 18 of 40 CFR part 60, appendix A, Method 25A with the use of a methane cutter as described in 40 CFR 1065.265, Method 18 or 40 CFR part 60, appendix A[c,d], Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17) | (d) Results of this test consist of the average of the three 1-hour or longer runs. |

[76 FR 37975, June 28, 2011]

**Table 3 to Subpart JJJJ of Part 60—Applicability of General Provisions to Subpart JJJJ**
[As stated in §60.4246, you must comply with the following applicable General Provisions]

| General provisions citation | Subject of citation | Applies to subpart | Explanation |
|---|---|---|---|
| §60.1 | General applicability of the General Provisions | Yes | |
| §60.2 | Definitions | Yes | Additional terms defined in §60.4248. |
| §60.3 | Units and abbreviations | Yes | |
| §60.4 | Address | Yes | |
| §60.5 | Determination of construction or modification | Yes | |
| §60.6 | Review of plans | Yes | |
| §60.7 | Notification and Recordkeeping | Yes | Except that §60.7 only applies as specified in §60.4245. |
| §60.8 | Performance tests | Yes | Except that §60.8 only applies to owners and operators who are subject to performance testing in subpart JJJJ. |
| §60.9 | Availability of information | Yes | |
| §60.10 | State Authority | Yes | |
| §60.11 | Compliance with standards and maintenance requirements | Yes | Requirements are specified in subpart JJJJ. |
| §60.12 | Circumvention | Yes | |
| §60.13 | Monitoring requirements | No | |
| §60.14 | Modification | Yes | |
| §60.15 | Reconstruction | Yes | |
| §60.16 | Priority list | Yes | |
| §60.17 | Incorporations by reference | Yes | |
| §60.18 | General control device requirements | No | |
| §60.19 | General notification and reporting requirements | Yes | |

**Table 4 to Subpart JJJJ of Part 60—Applicability of Mobile Source Provisions for Manufacturers Participating in the Voluntary Certification Program and Certifying Stationary SI ICE to Emission Standards in Table 1 of Subpart JJJJ**

[As stated in §60.4247, you must comply with the following applicable mobile source provisions if you are a manufacturer participating in the voluntary certification program and certifying stationary SI ICE to emission standards in Table 1 of subpart JJJJ]

| Mobile source provisions citation | Subject of citation | Applies to subpart | Explanation |
|---|---|---|---|
| 1048 subpart A | Overview and Applicability | Yes | |
| 1048 subpart B | Emission Standards and Related Requirements | Yes | Except for the specific sections below. |
| 1048.101 | Exhaust Emission Standards | No | |
| 1048.105 | Evaporative Emission Standards | No | |
| 1048.110 | Diagnosing Malfunctions | No | |
| 1048.140 | Certifying Blue Sky Series Engines | No | |
| 1048.145 | Interim Provisions | No | |
| 1048 subpart C | Certifying Engine Families | Yes | Except for the specific sections below. |
| 1048.205(b) | AECD reporting | Yes | |
| 1048.205(c) | OBD Requirements | No | |
| 1048.205(n) | Deterioration Factors | Yes | Except as indicated in 60.4247(c). |
| 1048.205(p)(1) | Deterioration Factor Discussion | Yes | |
| 1048.205(p)(2) | Liquid Fuels as they require | No | |
| 1048.240(b)(c)(d) | Deterioration Factors | Yes | |
| 1048 subpart D | Testing Production-Line Engines | Yes | |
| 1048 subpart E | Testing In-Use Engines | No | |
| 1048 subpart F | Test Procedures | Yes | |
| 1065.5(a)(4) | Raw sampling (refers reader back to the specific emissions regulation for guidance) | Yes | |
| 1048 subpart G | Compliance Provisions | Yes | |
| 1048 subpart H | Reserved | | |
| 1048 subpart I | Definitions and Other Reference Information | Yes | |
| 1048 appendix I and II | Yes | | |
| 1065 (all subparts) | Engine Testing Procedures | Yes | Except for the specific section below. |

| | | | |
|---|---|---|---|
| 1065.715 | Test Fuel Specifications for Natural Gas | No | |
| 1068 (all subparts) | General Compliance Provisions for Nonroad Programs | Yes | Except for the specific sections below. |
| 1068.245 | Hardship Provisions for Unusual Circumstances | No | |
| 1068.250 | Hardship Provisions for Small-Volume Manufacturers | No | |
| 1068.255 | Hardship Provisions for Equipment Manufacturers and Secondary Engine Manufacturers | No | |

**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:** | **Honda Manufacturing of Indiana, LLC** |
| **Source Location:** | **2755 North Michigan Avenue, Greensburg, Indiana 47240** |
| **County:** | **Decatur** |
| **SIC Code:** | **3711, 3714** |
| **Permit Renewal No.:** | **T031-30127-00026** |
| **Permit Reviewer:** | **Aida De Guzman** |

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Honda Manufacturing of Indiana, LLC relating to the operation of a an automotive and light-duty truck assembly plant. On January 18, 2011, Honda Manufacturing of Indiana, LLC submitted an application to the OAQ requesting to renew its operating permit. Honda Manufacturing of Indiana, LLC was issued its Part 70 Operating Permit T031-23360-00026 on October 19, 2006.

## Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) Body Painting Operations:

(1) Electrodeposition (E-Coat) Coating Line, identified as PA-02, with a capacity of 72 units per hour, consisting of the following:

(A) Multistage pretreatment/Phosphate Process, identified as PA-01 IA.

(B) One (1) Electrodeposition coating dip tank, rinse stages and E-Coat oven controlled by one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 14 million British thermal units per hour (MMBtu/hr), identified as ~~RTO #1~~ **Body Oven RTO** with stack ID 1100.

(C) One (1) E-Coat oven pre-heat zone, with a maximum heat input capacity of 3.7MMBtu/hr, exhausting to stack ID 1003.

(D) One (1) natural gas-fired E-coat ~~5~~-**4**-stage oven tunnel, which consists of ~~five~~ **four (4)** oven zones, each with a heat input capacity of 3.7 MMBtu/hr, controlled by one (1) RTO, identified as **Body Oven RTO** with stack ID 1100.

(E) One (1) cooling tunnel, exhausting to stack ID 1006.

(2) Sealer Deadener Coating Line, identified as PA-03, with a capacity of 73 units per hour, consisting of the following:

(A) One (1) automatic and manual sealer deadener application area, ~~and~~ one (1) sound deadener booth, using airless spray application system, exhausting to stack ID 1007 reheat

(3) Primer/Surfacer Coating Line, identified as PA-05, with a capacity of 80 units per hour, consisting of the following:

(A) One (1) Primer/Surfacer spray coating booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/~~oil~~ **polymer** emulsion wash system and dry filters to control particulate overspray, exhausting to stack ID 1014 and stack ID 1015.

(B) One (1) Primer/Surfacer flashoff area, with two (2) natural gas-fired heaters, one with a maximum heat input capacity of 3.5 MMBtu/hr and one with a maximum heat input capacity of 2.6 MMBtu/hr.

(C) One (1) natural gas-fired Primer/Surfacer ~~5~~ **4-**stage oven tunnel, which consists of ~~five (5)~~ **four (4)** zones, oven zones #1~~,~~ #2, and ~~#5 #~~**4,** each with a heat input capacity of 2.6 MMBtu/hr and oven zone~~s~~ #3 ~~and #4, each~~ with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as ~~RTO #1~~ **Body Oven RTO** with stack ID 1100.

(D) One (1) oven exit hood exhaust, exhausting to stack ID 1021.

(E) One (1) cooling tunnel, exhausting to stack ID 1022.

(F) Air make-up units as follows:

(i) One (1) natural gas-fired air makeup unit, for the primer/surfacer line, equipped with a two-stage burner, with a combined maximum heat input capacity of 7.8 MMBtu/hr.

(4) Topcoat Coating Operation, identified as PA-07, with two (2) Topcoat Lines #1 and #2, with a total capacity of 88 units per hour, consisting of the following:

(A) Two (2) basecoat spray booths, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/~~oil~~ **polymer** emulsion wash systems and dry filters to control particulate overspray, exhausting to stack ID 1032 and stack ID 1043.

(B) Two (2) basecoat flashoff areas, each with one (1) natural gas-fired heater, each with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1033 and stack ID 1044.

(C) Two (2) clearcoat spray booths, each approved in 2006 for construction and each approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems. The automatic zones use water/~~oil~~ **polymer** emulsion wash systems to control particulate overspray and the manual zones use dry filters. The manual zones are cascaded to the automatic zones, and the automatic zones are controlled by one (1) RTO, identified as ~~RTO #2~~ **Body Booth RTO** with stack ID 1101.

(D) One (1) natural gas-fired Topcoat ~~5~~-**4-**stage oven tunnel, which consists of ~~five (5)~~ **four (4)** zones, oven zone #1, with a heat input capacity of 3.5 MMBtu/hr, oven zone #2, with a heat input capacity of 2.6 MMBtu/hr, and oven zones #3, **and** #4 ~~and #5~~ , each with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as ~~RTO #1~~ **Body Oven RTO** with stack ID 1100.

(E) One (1) cooling tunnel, exhausting to stack ID 1041.

(F) One (1) oven exit hood exhaust, exhausting to stack ID 1037.

(G) Topcoat on-line repair, identified as PA-07 which includes:

(i) One (1) repair sanding booth, identified as PA-08 controlled by dust filters, exhausting to stack ID 1056.

(ii) One (1) repair coating booth using water/~~oil~~ **polymer** emulsion wash system to control particulate overspray, exhausting to stack ID 1057.

(iii) One (1) natural gas-fired repair oven, with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1058.

(iv) One (1) cooling tunnel, exhausting to stack ID 1060.

(v) One (1) small repair booth, exhausting to stack ID 1055, with infrared curing that consists of three (3) banks of portable infrared lights.

(H) Air makeup units as follows:

(i) Two (2) natural gas-fired air makeup units **(Basecoat #1 ASH and Basecoat #2 ASH)**, for the Topcoat Lines #1 and #2 basecoat booths, each equipped with a two-stage burner, each with a combined maximum heat input capacity of ~~9.2~~ **8.0** MMBtu/hr.

(ii) Two (2) natural gas-fired air makeup units **(Clearcoat #1 ASH and Clearcoat #2 ASH)**, for Topcoat Lines #1 and #2 clearcoat booths, each equipped with a two-stage burner, each with a combined maximum heat input capacity of ~~5.8~~ **5.0** MMBtu/hr.

(iii) One (1) natural gas-fired air makeup unit, for the topcoat on-line repair operations, equipped with a two-stage burner **(Repair ASH 1 and Repair ASH 2)**, with a combined maximum heat input capacity of 12.2 MMBtu/hr.

(5) Blackout/Cavity wax coating booth, identified as PA-11, equipped with dry filters, exhausting to stack ID 1062.

(6) Miscellaneous cleaning and purge operation – paint operations, consisting of the following:

(A) Purge and clean-up solvent usage and recovery system, identified as PA-14, including virgin solvent distribution, day tanks, small portable

containers including containers that meet the definition of cold cleaners, and spent solvent recovery.

(7) Paint effluent system, identified as PA-17, consisting of sludge for separation of paint solids form booth water/~~oil~~ **polymer** emulsion wash systems for body and plastic parts painting. Solids are chemically separated and sent off-site. Water/ ~~oil~~ **polymer** emulsion is recycled to paint booths or sent to wastewater treatment.

(8) One (1) natural gas-fired air makeup unit with a maximum heat input capacity of 20.0 MMBtu/hr, identified as **(Working Area ASH #1,** PA-21**)**.

(9) One (1) natural gas-fired air makeup unit with a maximum heat input capacity of 8.0 MMBtu/hr, identified as **(Working Area ASH #2**, PA-22**)**.

(10) One (1) natural gas -fired makeup unit with a maximum heat input capacity of 5.0 MMBtu/hr, identified as **(Working Area ASH #3,** PA-23**)**.

(11) ~~Two (2)~~ **One (1)** natural gas-fired HVAC units, identified as ~~PA-24 and~~ **HVAC ASH #2**, PA-25, ~~each~~ with a maximum heat input capacity of 13.0 MMBtu/hr.

(12) One (1) natural gas-fired HVAC unit, with a maximum heat input capacity of 8.00 MMBtu/hr, identified as **HVAC #3 ASH**, PA-26.

(b) Plastics Operations:

(1) Plastic Parts Coating Line, identified as PO-02, with a capacity of 120 hangers per hour, consisting of the following:

(A) Alkaline pretreatment process, identified as PO-01.

(B) One (1) dry-off tunnel, exhausting to stack ID 2000.

(C) One (1) primer spray booth, utilizing High Volume Low Pressure (HVLP) and/or electrostatic application systems, using water/~~oil~~ **polymer** emulsion wash to control particulate overspray, exhausting to stack ID 2002.

(D) One (1) basecoat spray booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/~~oil~~ **polymer** emulsion wash system to control particulate overspray. If waterborne basecoat is utilized, the basecoat spray booth will exhaust to stack ID 2003 and stack ID 2004. If solventborne basecoat is utilized, the basecoat spray booth will be controlled by one (1) RTO, identified as ~~RTO #3~~ **Bumper RTO** with stack ID 2029.

(E) One (1) clearcoat spray booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/~~oil~~ **polymer** emulsion wash system to control particulate overspray, and VOC emissions controlled by one (1) RTO, with a maximum heat input capacity of 14.00 MMBtu/hr, identified as ~~RTO #3~~ **Bumper RTO**, with stack ID 2029.

(F) One (1) clearcoat flashoff area.

(G) One (1) plastic parts oven tunnel which consists of two (2) zones, Topcoat Oven Zone #1 and Topcoat Oven Zone #2 each zone with a maximum heat input capacity of 2.6 MMBtu/hr burner controlled by one (1) RTO, identified as ~~RTO #3~~ **Bumper RTO** with stack ID 2029.

(H) One (1) natural gas-fired air makeup unit, equipped with a two-stage burner, with a combined maximum heat input capacity of 19.0 MMBtu/hr.

(2) Miscellaneous cleaning and purge operation – plastics painting, consisting of the following:

(A) Purge and clean-up solvent usage and recovery system, identified as PO-05, including virgin solvent distribution, day tanks, small portable containers including containers that meet the definition of cold cleaners, and spent solvent recovery.

(3) **Two (2)** ~~Three (3)~~ plastic parts injection molding machines, identified as PO-06 **and** PO-07, ~~and PO-08~~, with a combined maximum throughput of 4,050 pounds per hour plastic pellets.

(4) Three (3) plastic pellets storage silos, storage #1 is identified as PO-11, storage #2 is identified as PO-12 and storage #3 is identified as PO-18.

(5) One (1) Plastic parts touchup booth, identified as PO-17, using dry filters for particulate control and manual application systems.

(6) Two (2) painted/raw plastic parts regrind machines, identified as PO-15 and PO-16.

(7) Two (2) plastic flash torches, with a maximum heat input capacity of 0.10 MMBtu/hr each, identified as PO-14 and PO-19.

(c) Final Assembly Operations:

(1) Assembly window install and miscellaneous operations, identified as AF-01, with a capacity of 70 units per hour, consisting of all coatings, sealers, lubricants and related cleaning solvents used for auto assembly, including processes used to install window glass in vehicles, including body primer, glass cleaner, glass primer, and glass adhesive. Includes robotic and manual application equipment, coating delivery/circulation systems and raw material storage containers.

(2) Gasoline dispensing operation, with a capacity of 70 units per hour, consisting of the following:

(A) Gasoline dispensing equipment, identified as AF-02, located at the assembly line, for filling new vehicles, through the use of on-board vapor recovery (ORVR) on a minimum of 95% of the vehicles manufactured.

(B) One (1) gasoline storage tank, identified as FAC-99, located at the tank farm, with a capacity of 19,800 gallons, equipped with submerged fill and Stage 1 vapor balance.

(C) One (1) premium gasoline storage tank, identified as FAC-101, approved in 2011 for construction, located at the tank farm, with a capacity of 19,800 gallons, equipped with submerged fill and Stage 1 vapor balance.

(d) Weld sealer process using manual and robotic weld sealer application equipment, material delivery systems and raw material storage, identified as WE-01.

(e) Two (2) diesel fired emergency generators, identified as FAC-84 and FAC-85, each with a rated capacity of 757 HP.

(f) One (1) diesel fired back-up generator, identified as FAC-86, with a rated capacity of 158 HP.

**Emission Units and Pollution Control Equipment Removed From the Source**

The source has not constructed the following permitted emission units:

(a) Miscellaneous cleaning and purge operation – paint operations, consisting of the following:

(1) One (1) virgin purge solvent storage tank, identified as PA-18, located outside the paint department, with a capacity of 7,000 gallons.

(2) One (1) spent purge solvent storage tank, identified as PA-19, located outside the paint department, with a capacity of 7,000 gallons.

(b) Miscellaneous cleaning and purge operation – plastics painting, consisting of the following:

(1) One (1) virgin purge solvent storage tank, identified as PO-09, located outside the plastics department, with a capacity of 7,000 gallons.

(2) One (1) spent purge solvent storage tank, identified as PO-10, located outside the plastics department, with a capacity of 7,000 gallons.

(c) One (1) plastic parts injection molding machine identified as PO-08.

(d) Final Assembly Operations:

(1) One (1) gasoline storage tank , identified as FAC-100 with a capacity of 19,800 gallons, equipped with submerged fill and Stage 1 Vapor Balance.

Insignificant Activities:

(a) Application of oils, greases, lubricants, or other nonvolatile materials applied as temporary protective coatings.

(1) Periodic application of rust preventive oils to body steel for corrosion protection, identified as WE-03.

(b) One (1) paint test lab, identified as PA-16, with a capacity of 15 panels per hour.

(c) General List of Trivial/Insignificant Activities

(1) Water related activities including:

(A) Production of hot water for on-site personal use not related to any industrial or production process.

(B) Cooling ponds.

(C) Pressure washing of equipment.

(D) Water jet cutting operations.

(2) Combustion Activities including the following:

(A) Portable electrical generators that can be moved by hand from one location to another.

(B) Fuel use related to food preparation for on-site consumption.

(C) Combustion emissions from propulsion of mobile sources.

(D) Tobacco smoking rooms and areas.

(E) Indoor and outdoor kerosene heaters.

(3) Ventilation and venting related equipment including the following:

(A) Stacks and vents from plumbing traps used to prevent the discharge of sewer gases, handling domestic sewage only, excluding those at wastewater treatment plants or those handling any industrial waste.

(B) Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.

(C) Air vents from air compressors.

(D) Ventilation exhaust, central chiller water systems, refrigeration and air conditioning equipment, not related to any industrial or production process, including natural draft hoods, or ventilating systems that do not remove air pollutants.

(4) Activities related to routine fabrication, maintenance and repair of buildings, structures, equipment or vehicles at the source where air emissions from those activities would not be associated with any commercial production process including the following:

(A) Activities associated to routine fabrication, maintenance of paved and unpaved rods, including paving or sealing, or both, of parking lots and roadways.

(B) Painting including interior and exterior painting of buildings, and solvents use, excluding degreasing utilizing halogenated solvents.

(C) Brazing, soldering, or welding operation and associated equipment.

(D) Batteries and battery charging stations, except at battery manufacturing plants.

(E) Lubrications, including hand-held spray can lubrication, dipping metal parts into lubricating oil, and manual or automated addition of cutting oil in machining operations.

(F) Non-asbestos insulation installation or removal.

(G) Tarring, retarring and repair of building roofs.

(5) Activities performed using hand-held equipment including the following:

| | | |
|---|---|---|
| - Buffing | - Carving | - Cutting, excluding cutting torches |
| - Drilling | - Routing | - Surface grinding |
| - Grinding | - Sanding | - Turning wood, metal or plastic |
| - Polishing | - Surface grinding- | |
| - Sawing | - Machining wood, metal or plastic | |

(6) Housekeeping and janitorial activities and supplies including the following:

(A) vacuum cleaning systems used exclusively for housekeeping or custodial activities or both.

(B) Restrooms and associated cleanup operations and supplies.

(C) Alkaline or phosphate cleaners and associated equipment.

(D) Mobile floor sweepers and floor scrubbers.

(E) Pest control fumigation.

(7) Office related including the following:

(A) Office supplies and equipment.

(B) Photocopying equipment and associated supplies.

(C) Paper shredding.

(D) Blueprint machines, photographic equipment, and associated supplies.

(8) Sampling and testing equipment and activities including the following:

(A) Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.

(B) Sampling activities including: Sampling of waste.

(C) Instrument air dryers and distribution.

(9) Storage equipment and activities including:

(A) Pressurized storage tanks and associated piping for inorganic compounds, acetylene, liquid natural gas (LNG), propane as liquid petroleum gas (LPG), carbon dioxide (CO2) and natural gas.

(B) Storage tanks, vessels, and containers holding or storing liquid substances that do not contain any VOC or HAP.

(i) One (1) sulfuric acid storage tank, identified as FAC-109.

(C) Storage of drums containing maintenance raw materials.

(D) Portable container used for the collection, storage, or disposal of materials provided the container capacity is equal to or less than 0.46 cubic meters and the container is closed except when the material is added or removed.

(10) Emergency and standby equipment including:

(A) Safety and emergency equipment, except engine driven fire pumps, including fire suppression systems and emergency road flares.

(B) Process safety relief devices installed solely for the purpose of minimizing injury to persons or damage to equipment which could result from abnormal process operating conditions, including the following:

(i) Explosion relief vents, diaphragms or panels.

(ii) Rupture discs.

(iii) Safety relief valves.

(C) Activities and equipment associated with on-site medical care not otherwise specifically regulated.

(D) Vacuum producing devices for the purpose of removing potential accidental releases.

(11) Activities associated with production including the following:

(A) Electrical resistance welding.

(B) Drop hammers or hydraulic presses for forging or metalworking.

(C) Air compressors and pneumatically operated equipment, including hand tools.

(D) Compressor or pump lubrication and seal systems.

(E) Handling of solid steel, including coils and slabs, excluding scrap burning, scarfing, and charging into steel making furnaces and vessels.

(12) Miscellaneous equipment, but not emissions associated with the process for which the equipment is used, and activities including the following:

(A) Equipment used for surface coating, painting, dipping or spraying operations, except those that will emit VOCs and HAPs.

(B) Condensate drains for natural gas and landfill gas.

(C) Manual loading and unloading operations.

(D) Construction and demolition operations.

(E) Non-volatile mold release waxes and agents

(13) Lawn care and landscape maintenance activities and equipment, including the storage, spraying or application of insecticides, pesticides and herbicides.

(14) Use of consumer products and equipment where the product or equipment is used at a source in the same manner as normal consumer use and is not associated with any production process.

(15) Activities generating limited amounts of fugitive dust including: Road salting and sanding.

**Insignificant Activities**

(a) Painting Operations:

(1) E-Coat sanding and inspection booth, identified as PA-04, using dry filters for particulate control, exhausting to general ventilation.

(2) Primer/Surfacer sanding and inspection booth, identified as PA-06, using dry filters for particulate control, exhausting to general ventilation.

(3) Topcoat in-line repair, which includes repair area for small interior topcoat, imperfections, manual application equipment, identified as PA-09.

(4) Topcoat manual sanding and inspection area, identified as PA-10.

(5) One (1) plastic coating line masking booth.

(6) One (1) plastic coating line air blow booth.

(7) Final Repair, identified as PA-12, which includes repair coating booths and general areas, using manual application systems, and IR curing equipment.

(8) Final Repair - Air Dry, identified as PA-13, using air dry materials and manual application system.

(9) Paint Mix Rooms (Emissions accounted for in the emission determinations at each respective source).

(10) One (1) Plastic parts touchup booth, identified as PO-17, using dry filters for particulate control and manual application systems.

(b) 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.

(1) ~~Two (2)~~ **One (1)** natural gas-fired hot water heater~~s~~ (FAC-110 ~~and FAC-111~~) for the purpose of supplying hot water to the café kitchen, ~~each~~ with a maximum heat input capacity of 0.50 MMBtu/hr.

(2) Four (4) natural gas-fired hot water generators, located in the body painting area, (PA-20) with a combined maximum heat input capacity of 24.5 MMBtu/hr.

(3) One (1) natural gas-fired air makeup unit for the Primer/Surfacer sanding and inspection booth (PA-06), with a maximum heat input capacity of 6.4 MMBtu/hr.

(4) Twenty-eight (28) natural gas-fired space heaters (FAC-53 through **FAC-72** ~~FAC-80),~~ with a combined maximum heat input capacity of ~~3.3~~ **2.6** MMBtu/hr **and**

**(FAC-73 through FAC-80 with a combined maximum heat input capacity of 0.8 MMBtu/hr.**

(5) Natural gas-fired HVAC units (FAC-01 through FAC-07, FAC-11 through FAC-20, FAC-26 through FAC-30, FAC-32, FAC-35 through FAC-37, FAC-39 through FAC-41, FAC-43 through FAC-52, FAC-146~~,~~ **and** FAC-147 ~~and FAC-179~~), with a combined maximum heat input capacity of ~~88.142~~ **87.36** MMBtu/hr.

(6) Forty three (43) natural gas-fired space heaters (FAC-117 through FAC-130, FAC-133 through FAC-139, FAC-148 through FAC-150 and FAC-151 through FAC-169), with a combined maximum heat input capacity of ~~6.725~~ **6.83** MMBtu/hr.

(7) Four (4) natural gas-fired HVAC units (FAC-116, FAC-131, FAC-132 and FAC-140), with a combined maximum heat input capacity of 2.13 MMBtu/hr.

(c) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.

(A) Two (2) diesel fuel storage tanks for fire pumps, identified as FAC-93 and FAC-94, each with a capacity of 300 gallons, each equipped with submerged fill.

(B) Three (3) diesel fuel storage tanks for generators, identified as FAC-95, FAC-177 and FAC-178, each with a capacity of 150 gallons.

(C) Two (2) LPG storage tanks, identified as FAC-113 and FAC-114 each with a capacity of 1,000 galllons.

(2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

(d) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

(e) Cleaners and solvents having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100$^{o}$F).

(f) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment:

(1) One (1) Stamping Shop - Four (4) press stamping lines, stamped parts repair and die maintenance activities, including hand held grinders, sanders, files, portable MIG welding, arc, welding, and stick welding, identified as ST-01.

(2) Body welding and finishing, identified as WE-02, using resistance welding and grinding, and MIG welding stations. The SR station "Stationary Robots" and back-up MIG welding and grinding operations are controlled by cartridge filters.

(3) Portable MIG, arc and TIG welding, identified as WE-06.

(g) Infrared cure equipment.

(h) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(1) Industrial WWT operations, identified as FAC-112, for pretreatment for metals removal using a chemical precipitation process.

(i) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.

(j) Noncontact cooling tower systems with forced and/or induced draft cooling tower system not regulated under a NESHAP.

(1) One (1) forced draft chiller cooling tower, identified as FAC-105, with a capacity of 20,000 gallons per minute.

(2) One (1) forced draft air compressor cooling tower, identified as FAC-107, with a capacity of 940 gallons per minute.

(k) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(l) Heat exchanger cleaning and repair.

(m) Process vessel degreasing and cleaning to prepare for internal repairs.

(n) Paved and unpaved roads and parking lots with public access, identified as FAC-108.

(o) Purging of gas lines and vessels that is related to routing 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.

(p) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(q) On-site fire and emergency response training approved by the department.

(r) Emergency generators as follows: Diesel generators not exceeding 1600 horsepower.

(1) One (1) substation emergency generator, identified as FAC-81, with a capacity of 133 horsepower (HP).

(2) One (1) Consolidation Center emergency generator, identified as FAC-89, with a capacity of 133 HP.

(3) One (1) Credit Union building emergency generator, identified as FAC-115, with a capacity of 133 HP.

(s) Other emergency equipment as follows: Stationary fire pumps.

(1) Two (2) stationary fire pumps, identified as FAC-82 and FAC-83, each with a rated capacity of 183 horsepower.

(t) Emergency generators as follows: Gasoline generators not exceeding 110 horsepower.

(1) Two (2) emergency generators, identified as FAC-145 and FAC-175, with a capacity of 5.5 HP each.

(u) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(v) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations.

(1) One (1) ~~wheelabrator~~ **tumbleblast** unit, identified as PA-15.

(w) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(x) Enclosed systems for conveying plastic raw materials and plastic finished goods as defined in 326 IAC 2-7-1(21)(G).

(y) Activities with emissions equal to or less than the following thresholds: 5 lb/hr or 26 lb/day PM; 5 lb/hr or 25 lb/day SO2; 5 lb/hr or 25 lb/day NOx; 3 lb/hr or 15 lb/day VOC; 1.0 ton/yr of a single HAP, or 2.5 ton/yr of any combination of HAPs:

(1) Windshield washer fluid fill operation, with a capacity of 70 units per hour, consisting of the following:

(A) Water/methanol fluid mixing and dispensing equipment, identified as AF-03, located at the assembly line, for filling new vehicles.

(B) One (1) windshield washer fluid storage tank, identified as FAC-102, located at the tank farm, with a capacity of 2,000 gallons, equipped with submerged fill.

(2) The following tanks, located at the Tank Farm:

(A) One (1) automatic transmission fluid storage tank, identified as FAC-96, with a capacity of 10,000 gallons, equipped with submerged fill.

(B) One (1) antifreeze storage tank, identified as FAC-103, with a capacity of 10,000 gallons, equipped with submerged fill.

(C) One (1) brake fluid storage tank, identified as FAC-98, with a capacity of 2,000 gallons, equipped with submerged fill.

(D) One (1) power steering fluid storage tank, identified as FAC-~~101~~ **204**, with a capacity of 2,000 gallons, equipped with submerged fill.

(E) One (1) manual transmission fluid storage tank, identified as FAC-104, with a capacity of 2,000 gallons, equipped with submerged fill.

(F) One (1) diesel fuel storage tank for yard truck operations, identified as MS-01, with a capacity of 3,000 gallons, equipped with submerged fill.

(3) The following tank, located at the Utility Building:

(A) One (1) diesel fuel storage tank, identified as FAC-90, with a capacity of 2,000 gallons, equipped with submerged fill.

(4) One (1) compressed natural gas tank, identified as AF-04, for filling CNG vehicles.

(5) Eight (8) cold cleaner degreasers, identified as ST-02, MS-02, WE-07, AF-05, VQ-01, PA-27, PO-20 and FAC-176, located at designated areas.

(6) One (1) BPA Polish booth, identified as PO-04, consisting of manual air tools for scuffing, polishing, and buffing painted plastic parts.

## Existing Approvals

Since the issuance of the Part 70 Operating Permit 031-23360-00026 on October 19, 2006, the source has constructed or has been operating under the following additional approvals:

(a) First Significant Permit Modification No. 031-24706-00026, issued on November 5, 2007; and

(b) Second Significant Permit Modification No. 031-26051-00026, issued on May 12, 2008;

(c) Third Significant Permit Modification No. 031-30082-00026, May 4, 2011; and

(d) Fourth Significant Permit Modification No. 031-30735-00026, issued on

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

## Enforcement Issue

There are no enforcement actions pending against the source.

## County Attainment Status

The source is located in Decatur County.

| Pollutant | Designation |
|---|---|
| $SO_2$ | Better than national standards. |
| CO | Unclassifiable or attainment effective November 15, 1990. |
| $O_3$ | Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1] |
| $PM_{10}$ | Unclassifiable effective November 15, 1990. |
| $NO_2$ | Cannot be classified or better than national standards. |
| Pb | Not designated. |

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Unclassifiable or attainment effective April 5, 2005, for $PM_{2.5}$.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides ($NO_x$) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and $NO_x$ emissions are considered when evaluating the rule applicability relating to ozone. Decatur County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and $NO_x$ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) Decatur County has been classified as attainment for $PM_{2.5}$. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct $PM_{2.5}$ and $SO_2$ emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
Decatur County has been classified as attainment or unclassifiable in Indiana for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

## Fugitive Emissions

This type of operation (automotive and light-duty trucks assembly plant) is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-7, however, there is an applicable New Source Performance Standard (Subpart MM) that was in effect on August 7, 1980, therefore fugitive emissions, from the affected facilities to which the New Source Performance Standard, Subpart MM is applicable, are counted toward the determination of PSD and Part 70 Permit applicability.

## Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

| Unrestricted Potential Emissions | |
|---|---|
| Pollutant | Tons/year |
| PM | 630.64 |
| $PM_{10}$ | 627.18 |
| $PM_{2.5}$ | -- |
| $SO_2$ | 2.22 |
| VOC | 946.33 |
| CO | 133.89 |
| $NO_x$ | 132.46 |
| GHGs | 186,321 $CO_2e$ |
| Single HAP | >10 |

| Unrestricted Potential Emissions | |
|---|---|
| Pollutant | Tons/year |
| Total HAP | 302.14 |

Note: PM is not regulated under the Part 70 Operating Permit Program.

All Honda's emission units predate May 8, 2008, the promulgation of the Implementation of New Source Review Requirements for PM2.5. Therefore, no PM2.5 potential to emit was calculated and included in the above table.

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10, VOC, CO, NOx is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of GHGs is equal to or greater than one hundred thousand (100,000) tons of $CO_2$ equivalent emissions ($CO_2e$) per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

And

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

## Actual Emissions

The following table shows the actual emissions as reported by the source. This information reflects the 2009 OAQ emission data.

| Pollutant | Actual Emissions (tons/year) |
|---|---|
| PM | 3.0 |
| $PM_{10}$ | 3.0 |
| $PM_{2.5}$ | 3.0 |
| $SO_2$ | 0.0 |
| VOC | 90.0 |
| CO | 14.0 |
| $NO_x$ | 17.0 |

## Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

## Potential to Emit After Issuance

| Potential To Emit of the Entire Source After Issuance of Renewal (tons/year) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Process/Emission Unit** | **NOx** | **CO** | **PM** | **PM10/ PM2.5** | **SO2** | **VOC** | **GHGs** | **Total HAPs** | **Worst Single HAPs** |
| ***Painting Operations*** | | | | | | | | | Xylene = 69.8 |
| E-Coat Line (PA-02) | -- | -- | -- | -- | -- | 2.44 | -- | 0.00 | |
| Sealer/Deadener (PA-03) | -- | -- | -- | -- | -- | 17.92 | -- | 3.07 | |
| Primer/Surfacer (PA-05) | -- | -- | 0.75 | 0.75 | -- | 73.93 | -- | 0.85 | |
| Topcoat Coating Line & On-line Repair (PA-07) | -- | -- | 0.65 | 0.65 | -- | 111.68 | -- | 36.24 | |
| Topcoat On-line Repair (PA-07) | -- | -- | 0.13 | 0.13 | -- | 12.28 | -- | 1.42 | |
| Misc. Sanding (PA-04, PA-06, PA-08, PA-10) | -- | -- | 0.32 | 0.32 | -- | -- | -- | -- | |
| Topcoat on-line Repair (PA-09) | -- | -- | 0.24 | 0.24 | -- | 1.08 | -- | 1.35 | |
| Blackout/Wax Coating Line (PA-11) | -- | -- | 0.35 | 0.35 | -- | 10.86 | -- | 0.00 | |
| Final Repair (PA-12) | -- | -- | 0.05 | 0.05 | -- | 2.41 | -- | 0.86 | |
| Final Repair - Air Dry (PA-13) | -- | -- | 0.11 | 0.11 | -- | 0.51 | -- | 0.61 | |
| Misc. Cleaning & Purge (PA-14) | -- | -- | 0.00 | 0.00 | -- | 67.09 | -- | 109.39 | |
| Paint Test Lab (PA-16) | -- | -- | 0.00 | 0.00 | -- | 0.05 | -- | 0.01 | |
| Paint Effluent System (PA-17) | -- | -- | 0.00 | 0.00 | -- | 4.01 | -- | 0.00 | |
| Wheelabrator/Shotblaster (PA-15) | -- | -- | 0.02 | 0.02 | -- | 0.00 | -- | 0.00 | |
| ***Plastic Operations*** | | | | | | | | | |
| [1] Fascia/Bumper Coating Line (solvent BC) (PO-02) | -- | -- | 1.96 | 1.96 | -- | 51.80 | -- | 7.71 | |
| [1] Fascia/Bumper Coating Line (water BC) (PO-02) | -- | -- | 1.84 | 1.84 | -- | 92.28 | -- | 16.42 | |
| IP Painting Line (PO-03) | -- | -- | 0.40 | 0.40 | -- | 6.47 | -- | 1.15 | |
| BPa Polishing (PO-04) | -- | -- | 0.00 | 0.00 | -- | 0.34 | -- | 0.00 | |
| Misc. Cleaning & Purge (PO-05) | -- | -- | 0.00 | 0.00 | -- | 28.35 | -- | 3.34 | |
| Plastic Injection Molding (PO-06, PO-07) | -- | -- | 0.00 | 0.00 | -- | 5.7 | -- | 0.00 | |
| Plastic Pellet Storage Silos (PO-11, PO-12) | -- | -- | 0.13 | 0.13 | -- | 0.00 | -- | 0.00 | |
| ***Misc. Operations*** | | | | | | | | | |
| NG Combustion (PA and FAC Emission Units) | 50.00 | 91.50 | 3.70* | 3.70 | 0.30 | 2.70 | 186,321 CO2e | 0.92 | |
| Emergency Generators & Firepumps | 18.98 | 4.09 | 1.35 | 1.35 | 1.26 | 1.54 | -- | 0.02 | |
| Weld Sealer Process (WE-01) | -- | -- | 0.00 | 0.00 | -- | 3.91 | -- | 0.01 | |
| Body Welding (WE-02) & Finishing (WE-03) | -- | -- | 0.01 | 0.01 | -- | 5.11 | -- | 0.00 | |
| Cooling Towers | -- | -- | 2.60 | 2.60 | -- | 0.00 | -- | 0.00 | |
| Storage Tanks | -- | -- | 0.00 | 0.00 | -- | 9.97 | -- | 4.41 | |
| Gas & Wwfluid Dispensing (AF-02, AF-03) | -- | -- | 0.00 | 0.00 | -- | 0.81 | -- | 0.34 | |
| Roadways | -- | -- | 6.14 | 2.68 | -- | | -- | -- | |

| Potential To Emit of the Entire Source After Issuance of Renewal (tons/year) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Process/Emission Unit** | **NOx** | **CO** | **PM** | **PM10/ PM2.5** | **SO2** | **VOC** | **GHGs** | **Total HAPs** | **Worst Single HAPs** |
| **Total PTE (tons/yr)** | **68.98** | **95.59** | **[2]18.90** | **15.44** | **1.56** | **461.43** | **186,321 CO2e** | **180.43** | **69.8** |
| Title V Major Source Thresholds | 100 | 100 | N/A | 100 | 100 | 100 | 100,000 $CO_2e$ | 25 | 10 |
| PSD Major Source Thresholds | 250 | 250 | 250 | 250 | 250 | 250 | 100,000 $CO_2e$ | NA | NA |

Notes: [1]The uncontrolled and controlled PTEs (tons/yr) of VOC from the Plastic Painting Line (PO-02) are based on the worst case emissions.

All Honda's emission units predate May 8, 2008, the promulgation of the Implementation of New Source Review Requirements for PM2.5. Therefore, no PM2.5 potential to emit was calculated and included in the above table.

(a) This existing stationary source is major for PSD because the emissions of at least one attainment pollutant (VOC) are greater than two hundred fifty (>250) tons per year and emissions of GHGs are equal to or greater than one hundred thousand (>100,000) tons of $CO_2$ equivalent emissions ($CO_2e$) per year, and it is not in one of the twenty-eight (28) listed source categories.

(b) This existing source went through PSD review as a greenfield source in 2006 for VOC, because this attainment pollutant was emitted in amounts equal to or greater than 250 tons per year. Likewise Honda went through PSD review for other attainment pollutants (PM, PM10 and NOx) because each pollutant was emitted in amounts equal to or greater than the significant PSD levels.

Note: [2] During the initial PSD review the natural gas was limited at 2,285.7 million cubic feet per year (MMCF/yr) which resulted in the PM emissions sourcewide greater than 25 tons/yr and subject to PSD review. This limit was reduced to 976 MMCF/yr, with corresponding PM emissions now at less than 25 tons/yr.

## Federal Rule Applicability

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets 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:

## CAM Applicability for VOC

| 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) |
|---|---|---|---|---|---|---|---|---|
| E-Coat Line - E-Coat Tank, Rinse Tank and Drying Oven (PA-02) | | RTO | Y | 48.77 | 2.44 | 100 | N | -- |
| Primer Surfacer Drying Oven (PA-05) | | RTO | Y | 81.69 | 73.93 | 100 | N | -- |
| Top Coat Lines 1 and 2 (PA-07) | Clearcoat booths 1 and 2 combined | RTO | Y | 183.7 | 26.6 | 100 | Y | N |
| | Drying Oven | RTO | | | | | | |
| Topcoat Line Repair (PA-07) | | None | Y | 12.28 | 12.28 | 100 | N | -- |
| Topcoat Line Repair (PA-09) | | None | Y | 1.08 | 1.08 | 100 | N | -- |
| Blackout/Wax Coating Line (PA-11) | | None | Y | 10.86 | 10.86 | 100 | N | -- |
| Final Repair (PA-12) | | None | Y | 2.41 | 2.41 | 100 | N | -- |
| Miscellaneous Cleaning & Purge (PA-14) | | None | Y | 67.09 | 67.09 | 100 | N | -- |
| Plastic Parts Coating Line (PO-02) | Basecoat Booth | RTO | Y | 119.00 | 17.00 | 100 | Y | N |
| | Clearcoat Booth | | Y | 109 | 15.00 | 100 | Y | N |
| IP Painting Line (PO-03) | | None | Y | 6.47 | 6.47 | 100 | N | -- |
| Miscellaneous Cleaning & Purge (PO-05) | | None | Y | 28.35 | 28.35 | 100 | N | -- |
| Plastic Injection Molding (PO-06, PO-07) | | None | Y | 5.7 | 5.7 | 100 | N | -- |
| Weld Sealer (WE-01) | | None | Y | 3.91 | 3.91 | 100 | N | -- |
| Body Welding (WE-02) and Finishing (WE-03) | | None | Y | 5.11 | 511 | 100 | N | -- |

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the Clearcoat booths 1 and 2 and Drying Oven at the Top Coat Lines 1 and 2 (PA-07), Basecoat Booth and Clearcoat Booth at the Plastic Parts Coating Line (PO-02) for Volatile Organic Compounds (VOC). Although, these booths are subject to NESHAP, Subpart IIII that was promulagted after November 15, 1990, they are not exempt from the CAM rule because this NESHAP does not regulate VOC.

A CAM plan has been submitted on January 18, 2011 with the proposed Part 70 Operating Renewal application and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

## CAM Applicability for HAPs

The surface coating of automobile and light-duty trucks is subject to NESHAP, Subpart IIII that was promulgated after November 15, 1990. Assuming the worst case that each booth emits ten (10) tons/yr of single HAP and twenty-five (25) tons/yr of combined HAPs, each booth would still not be subject to CAM because each is subject to NESHAP, Subpart IIII.

**CAM Applicability for PM/PM10**

| 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 Surfacer (PA-05) | | Water/polymer emulsion wash system and dry filters | Y | 217.74 | 0.75 | 100 | Y | N |
| Top Coat Lines 1 and 2 (PA-07) | 2 Basecoat Booths [1] | Water/polymer emulsion wash system and dry filters | Y | 78.1 | 0.26 | 100 | N | -- |
| | 2 Clearcoat Booths[2] | Water/polymer emulsion wash system | Y | 62.1 | 0.259 | 100 | N | -- |
| Topcoat Line Repair (PA-07) | | Water polymer emulsion wash system | Y | 9.26 | 0.13 | 100 | N | -- |
| Blackout/Wax Coating Line (PA-11) | | Dry Filters | Y | 17.46 | 0.35 | 100 | N | -- |
| Wheelabrator/Shotblaster (PA-15) | | Cartridge filter | Y | 13.14 | 0.02 | 100 | N | -- |
| Fascia Bumper Coating Line (PO-02) | Basecoat Booth | Water/polymer emulsion wash system | Y | 87.0 | 0.87 | 100 | N | -- |
| | Clearcoat Booth | Water/polymer emulsion wash system | Y | 6.006 | 0.66 | 100 | N | -- |
| | Primer Booth | Water/polymer emulsion wash system | Y | 43.00 | 0.43 | 100 | N | -- |

Notes: [1] The uncontrolled PTE is for 2 basecoat booths, however it will be considered the worst case for each booth since there is no data to calculate individual PTE.
[2] The uncontrolled PTE is for 2 clearcoat booths, however it will be considered the worst case for each booth since there is no data to calculate individual PTE.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the Primer Surfacer (PA-05) for PM/PM10. Although, this operation is subject to NESHAP, Subpart IIII that was promulagted after November 15, 1990, it is not exempt from the CAM rule because this NESHAP does not regulate PM and PM10.

A CAM plan has been submitted on January 18, 2011 with the proposed Part 70 Operating Renewal application and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

(b) New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60):

(1) 40 CFR Part 60.390, Subpart MM - This source still is subject to the New Source Performance Standards for Automobile and Light-Duty Truck Surface Coating, (40 CFR Part 60.390, Subpart MM), which is incorporated by reference as 326 IAC 12 - The provisions of this subpart apply to the following affected facilities in an automobile or light-duty truck assembly plant: each prime coat operation, each guide coat operation, and each topcoat operation:

(A) Electrodeposition (E-Coat) Coating Line, identified as PA-02, with a capacity of 72 units per hour, consisting of the following:

(i) Multistage pretreatment/Phosphate Process, identified as PA-01 IA.

(ii) One (1) Electrodeposition coating dip tank, rinse stages and E-Coat oven controlled by one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 14 million British thermal units per hour (MMBtu/hr), identified as Body Oven RTO with stack ID 1100.

(iii) One (1) E-Coat oven pre-heat zone, with a maximum heat input capacity of 3.7MMBtu/hr, exhausting to stack ID 1003.

(iv) One (1) natural gas-fired E-coat-4-stage oven tunnel, which consists of four (4) oven zones, each with a heat input capacity of 3.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(v) One (1) cooling tunnel, exhausting to stack ID 1006.

(B) Primer/Surfacer Coating Line, identified as PA-05, with a capacity of 80 units per hour, consisting of the following:

(i) One (1) Primer/Surfacer spray coating booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system and dry filters to control particulate overspray, exhausting to stack ID 1014 and stack ID 1015.

(ii) One (1) Primer/Surfacer flashoff area, with two (2) natural gas-fired heaters, one with a maximum heat input capacity of 3.5 MMBtu/hr and one with a maximum heat input capacity of 2.6 MMBtu/hr.

(iii) One (1) natural gas-fired Primer/Surfacer 4-stage oven tunnel, which consists of four (4) zones, oven zones #1, #2, and #4, each with a heat input capacity of 2.6 MMBtu/hr and oven zone #3 with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(iv) One (1) oven exit hood exhaust, exhausting to stack ID 1021.

(v) One (1) cooling tunnel, exhausting to stack ID 1022.

(vi) Air make-up units as follows:

(A) One (1) natural gas-fired air makeup unit, for the primer/surfacer line, equipped with a two-stage burner, with a combined maximum heat input capacity of 7.8 MMBtu/hr.

(C) Topcoat Coating Operation, identified as PA-07, with two (2) Topcoat Lines #1 and #2, with a total capacity of 88 units per hour, consisting of the following:

(i) Two (2) basecoat spray booths, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash systems and dry filters to control particulate overspray, exhausting to stack ID 1032 and stack ID 1043.

(ii) Two (2) basecoat flashoff areas, each with one (1) natural gas-fired heater, each with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1033 and stack ID 1044.

(iii) Two (2) clearcoat spray booths, each approved in 2006 for construction and each approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems. The automatic zones use water/polymer emulsion wash systems to control particulate overspray and the manual zones use dry filters. The manual zones are cascaded to the automatic zones, and the automatic zones are controlled by one (1) RTO, identified as Body Booth RTO with stack ID 1101.

(iv) One (1) natural gas-fired Topcoat 4-stage oven tunnel, which consists of four (4) zones, oven zone #1, with a heat input capacity of 3.5 MMBtu/hr, oven zone #2, with a heat input capacity of 2.6 MMBtu/hr, and oven zones #3, and #4, each with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(v) One (1) cooling tunnel, exhausting to stack ID 1041.

(vi) One (1) oven exit hood exhaust, exhausting to stack ID 1037.

Non applicable portions of the NSPS will not be included in the permit. The following sections of 40 CFR Part 60, Subpart MM shall apply to the above emission units:

40 CFR Part 60.390
40 CFR Part 60.391
40 CFR Part 60.392
40 CFR Part 60.393
40 CFR Part 60.394
40 CFR Part 60.395
40 CFR Part 60.396
40 CFR Part 60.397
40 CFR Part 60.398

(2) 40 CFR Part 60.4200, Subpart IIII - This source still is subject to the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60.4200, Subpart IIII), which is incorporated by reference as 326 IAC 12. This rule applies to manufacturers, owners and operators of stationary CI ICE that commence construction (date the engine was ordered) as specified below:

(A) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines;

(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(B) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

(i) Manufactured after April 1, 2006, and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(C) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(D) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

(E) The provisons of this subpart are not applicable to stationary CI ICE being tested at a stationaryCI ICE test cell/stand.

The following emergency generators are subject to the provisions of this NSPS:

| **Emergency Generators/Fire Pumps ID** | **Site Rating (HP)** |
|---|---|
| Generator, FAC-81 | 133 |
| Generator, FAC-86 | 158 |
| Generator, FAC-89 | 133 |
| Generator, FAC-115 | 133 |
| Fire Pump, FAC-82 | 183 |
| Fire Pump, FAC-83 | 183 |

Non applicable portions of the NSPS will not be included in the permit. The following sections of 40 CFR Part 60, Subpart IIII shall apply to the above emergency generators:

40 CFR 60.4200(a)(2)(i), (4)
40 CFR 60.4205(b), (c)
40 CFR 60.4206
40 CFR 60.4207(b)
40 CFR 60.4208
40 CFR 60.4209
40 CFR 60.4211(a), (c)
40 CFR60.4212
40 CFR 60.4214(b)
40 CFR 60.4218
40 CFR 60.4219
Table 2 to Subpart IIII of Part 60 (the applicable portions)
Table 4 to Subpart IIII of Part 60 (the applicable portions)
Table 8 to Subpart IIII of Part 60 (the applicable portions)

(3) 40 CFR Part 60, Subpart JJJJ - Standard of Performance for Stationary Spark Ignition Internal Combustion Engine. The following generators are subject to 40 CFR Part 60, Subpart JJJJ since they are spark ignition (SI) internal combustion engines (ICE) and were constructed on or after July 1, 2008 with a maximum engine power less than 500 HP:

| **Emergency Generators/Fire Pumps ID** | **Site Rating (HP)** |
|---|---|
| Generator, FAC-145 | 5.5 (spark ignition) |
| Generator, FAC-175 | 5.5 (spark ignition) |

Non applicable portions of the NSPS will not be included in the permit. The following sections of 40 CFR Part 60, Subpart JJJJ shall apply to the above emergency generators:

40 CFR Part 60.4230(a)(4)(iii)
40 CFR Part 60.4233(a)
40 CFR Part 60.4234
40 CFR Part 60.4235
40 CFR Part 60.4243(a)(2)(i)
40 CFR Part 60.4244
40 CFR Part 60.4245((a)
40 CFR Part 60.4246
40 CFR Part 60.4248
Table 2 to Subpart JJJJ of Part 60 (applicable portions)
Table 3 to Subaprt JJJJ of Part 60 (applicable portions)

(4) 40 CFR Part 60.390, Subpart Kb) - Standard of Performance Volatile Organic Vessels (Including Petroleum Liquid Storage Vessels, which is incorporated by reference in 326 IAC 12. This subpart applies to each storage vessel with a capacity greater than or equal to 75 cubic meters ($m^3$) (19,812.9 gal) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

This subpart, Kb does not apply to the source because its VOL storage tanks including petroleum liquid storage vessels as shown in the following table have capacities less than 19,812.9 gallons.

| **Tank Description** | **Unit ID** | **Volume** (gallons) |
|---|---|---|
| Gasoline Storage | FAC-99 | 19800 |
| Premium Gasoline Storage | FAC-101 | 19800 |
| WW Fluid | FAC-102 | 2,000 |
| Brake Fluid | FAC-98 | 2,000 |
| Power Steering Fluid | FAC-204 | 2,000 |
| Manual Trans. Fluid | FAC-104 | 2,000 |
| Automatic Trans. Fluid | FAC-96 | 10,000 |
| Antifreeze Fluid | FAC-103 | 10,000 |

| Tank Description | Unit ID | Volume |
|---|---|---|
| Diesel Fuel (total tankage) | varies | 3,000 |

(c) National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63)

(1) CFR Part 63, Subpart MMMM - This source still is subject to the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products (40 CFR Part 63, Subpart MMMM), which is incorporated by reference as 326 IAC 20-80. The source will continue to comply with the provisions of 326 IAC 20-85 and 40 CFR Part 63, Subpart IIII for Surface Coating of Automobiles and Light-Duty Trucks to comply with 40 CFR Part 63, Subpart MMMM.

(2) 40 CFR Part 63, Subpart PPPP - This source still is subject to the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products (40 CFR Part 63, Subpart PPPP), which is incorporated by reference as 326 IAC 20-81. The NESHAP, Subpart PPPP applies to a new, reconstructed, and existing affected source within each of the four subcategories; general use, automotive lamp coating, TPO coating, and assembled on-road vehicle coating, listed in Part 63.4481(a). The source is currently complying with the provisions in this NESHAP, Subpart PPPP for its affected emission units. However, in this permitting action the source chose to include the following affected emission units and thereby make them subject to the requirements of Subpart IIII for Surface Coating of Automobiles and Light-Duty Trucks:

(A) Plastics Operations:

(i) Plastic Parts Coating Line, identified as PO-02, with a capacity of 120 hangers per hour, consisting of the following:

(ii) Alkaline pretreatment process, identified as PO-01.

(iii) One (1) dry-off tunnel, exhausting to stack ID 2000.

(iv) One (1) primer spray booth, utilizing High Volume Low Pressure (HVLP) and/or electrostatic application systems, using water/polymer emulsion wash to control particulate overspray, exhausting to stack ID 2002.

(v) One (1) basecoat spray booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system to control particulate overspray. If waterborne basecoat is utilized, the basecoat spray booth will exhaust to stack ID 2003 and stack ID 2004. If solventborne basecoat is utilized, the basecoat spray booth will be controlled by one (1) RTO, identified as Bumper RTO with stack ID 2029.

(vi) One (1) clearcoat spray booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system to control particulate

overspray, and VOC emissions controlled by one (1) RTO, with a maximum heat input capacity of 14.00 MMBtu/hr, identified as Bumper RTO, with stack ID 2029.

(vii) One (1) clearcoat flashoff area.

(viii) One (1) plastic parts oven tunnel which consists of two (2) zones, Topcoat Oven Zone #1 and Topcoat Oven Zone #2 each zone with a maximum heat input capacity of 2.6 MMBtu/hr burner controlled by one (1) RTO, identified as Bumper RTO with stack ID 2029.

(ix) One (1) natural gas-fired air makeup unit, equipped with a two-stage burner, with a combined maximum heat input capacity of 19.0 MMBtu/hr.

(B) Miscellaneous cleaning and purge operation – plastics painting, consisting of the following:

(i) Purge and clean-up solvent usage and recovery system, identified as PO-05, including virgin solvent distribution, day tanks, small portable containers including containers that meet the definition of cold cleaners, and spent solvent recovery.

(3) 40 CFR Part 63, Subpart IIII - This source still is subject to the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Automobiles and Light-Duty Trucks (40 CFR Part 63, Subpart IIII), which is incorporated by reference as 326 IAC 20-85. The emission units subject to this rule include the following:

(A) Electrodeposition (E-Coat) Coating Line, identified as PA-02, with a capacity of 72 units per hour, consisting of the following:

(i) Multistage pretreatment/Phosphate Process, identified as PA-01 IA.

(ii) One (1) Electrodeposition coating dip tank, rinse stages and E-Coat oven controlled by one (1) natural gas-fired regenerative thermal oxidizer (RTO), with a maximum heat input capacity of 14 million British thermal units per hour (MMBtu/hr), identified as Body Oven RTO with stack ID 1100.

(iii) One (1) E-Coat oven pre-heat zone, with a maximum heat input capacity of 3.7MMBtu/hr, exhausting to stack ID 1003.

(iv) One (1) natural gas-fired E-coat-4-stage oven tunnel, which consists of four (4) oven zones, each with a heat input capacity of 3.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(v) One (1) cooling tunnel, exhausting to stack ID 1006.

(B) Sealer Deadener Coating Line, identified as PA-03, with a capacity of 73 units per hour, consisting of the following:

(i) One (1) automatic and manual sealer deadener application area, one (1) sound deadener booth, using airless spray application system,

exhausting to stack ID 1007.

(C) Primer/Surfacer Coating Line, identified as PA-05, with a capacity of 80 units per hour, consisting of the following:

(i) One (1) Primer/Surfacer spray coating booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system and dry filters to control particulate overspray, exhausting to stack ID 1014 and stack ID 1015.

(ii) One (1) Primer/Surfacer flashoff area, with two (2) natural gas-fired heaters, one with a maximum heat input capacity of 3.5 MMBtu/hr and one with a maximum heat input capacity of 2.6 MMBtu/hr.

(iii) One (1) natural gas-fired Primer/Surfacer 4-stage oven tunnel, which consists of four (4) zones, oven zones #1, #2, and #4, each with a heat input capacity of 2.6 MMBtu/hr and oven zone #3 with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(iv) One (1) oven exit hood exhaust, exhausting to stack ID 1021.

(v) One (1) cooling tunnel, exhausting to stack ID 1022.

(vi) Air make-up units as follows:

(A) One (1) natural gas-fired air makeup unit, for the primer/surfacer line, equipped with a two-stage burner, with a combined maximum heat input capacity of 7.8 MMBtu/hr.

(D) Topcoat Coating Operation, identified as PA-07, with two (2) Topcoat Lines #1 and #2, with a total capacity of 88 units per hour, consisting of the following:

(i) Two (2) basecoat spray booths, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash systems and dry filters to control particulate overspray, exhausting to stack ID 1032 and stack ID 1043.

(ii) Two (2) basecoat flashoff areas, each with one (1) natural gas-fired heater, each with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1033 and stack ID 1044.

(iii) Two (2) clearcoat spray booths, each approved in 2006 for construction and each approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems. The automatic zones use water/polymer emulsion wash systems to control particulate overspray and the manual zones use dry filters. The manual zones are cascaded to the automatic zones, and the automatic zones are controlled by one (1) RTO, identified as Body Booth RTO with stack ID 1101.

(iv) One (1) natural gas-fired Topcoat 4-stage oven tunnel, which consists of four (4) zones, oven zone #1, with a heat input capacity of 3.5 MMBtu/hr, oven zone #2, with a heat input capacity of 2.6 MMBtu/hr, and oven zones #3, and #4, each with a heat input capacity of 1.7 MMBtu/hr, controlled by one (1) RTO, identified as Body Oven RTO with stack ID 1100.

(v) One (1) cooling tunnel, exhausting to stack ID 1041.

(vi) One (1) oven exit hood exhaust, exhausting to stack ID 1037.

(vii) Topcoat on-line repair, identified as PA-07 which includes:

(viii) One (1) repair sanding booth, identified as PA-08 controlled by dust filters, exhausting to stack ID 1056.

(ix) One (1) repair coating booth using water/polymer emulsion wash system to control particulate overspray, exhausting to stack ID 1057.

(iii) One (1) natural gas-fired repair oven, with a maximum heat input capacity of 2.6 MMBtu/hr, exhausting to stack ID 1058.

(iv) One (1) cooling tunnel, exhausting to stack ID 1060.

(v) One (1) small repair booth, exhausting to stack ID 1055, with infrared curing that consists of three (3) banks of portable infrared lights.

(E) Miscellaneous cleaning and purge operation – paint operations, consisting of the following:

(i) Purge and clean-up solvent usage and recovery system, identified as PA-14, including virgin solvent distribution, day tanks, small portable containers including containers that meet the definition of cold cleaners, and spent solvent recovery.

(F) Paint effluent system, identified as PA-17, consisting of sludge for separation of paint solids form booth water/polymer emulsion wash systems for body and plastic parts painting. Solids are chemically separated and sent off-site. Water/polymer emulsion is recycled to paint booths or sent to wastewater.

(G) One (1) natural gas-fired air makeup unit with a maximum heat input capacity of 20.0 MMBtu/hr, identified as (Working Area ASH #1, PA-21).

(H) One (1) natural gas-fired air makeup unit with a maximum heat input capacity of 8.0 MMBtu/hr, identified as (Working Area ASH #2, PA-22).

(I) One (1) natural gas -fired makeup unit with a maximum heat input capacity of 5.0 MMBtu/hr, identified as (Working Area ASH #3, PA-23).

(J) One (1) natural gas-fired HVAC units, identified as HVAC ASH #2, PA-25, with a maximum heat input capacity of 13.0 MMBtu/hr.

(K) One (1) natural gas-fired HVAC unit, with a maximum heat input capacity of 8.00 MMBtu/hr, identified as HVAC #3 ASH, PA-26.

(L) Plastics Operations:

(i) Plastic Parts Coating Line, identified as PO-02, with a capacity of 120 hangers per hour, consisting of the following:

(ii) Alkaline pretreatment process, identified as PO-01.

(iii) One (1) dry-off tunnel, exhausting to stack ID 2000.

(iv) One (1) primer spray booth, utilizing High Volume Low Pressure (HVLP) and/or electrostatic application systems, using water/polymer emulsion wash to control particulate overspray, exhausting to stack ID 2002.

(v) One (1) basecoat spray booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system to control particulate overspray. If waterborne basecoat is utilized, the basecoat spray booth will exhaust to stack ID 2003 and stack ID 2004. If solventborne basecoat is utilized, the basecoat spray booth will be controlled by one (1) RTO, identified as Bumper RTO with stack ID 2029.

(vi) One (1) clearcoat spray booth, approved in 2006 for construction and approved in 2011 for modification, utilizing High Volume Low Pressure (HVLP) and electrostatic bell application systems, using water/polymer emulsion wash system to control particulate overspray, and VOC emissions controlled by one (1) RTO, with a maximum heat input capacity of 14.00 MMBtu/hr, identified as Bumper RTO, with stack ID 2029.

(vii) One (1) clearcoat flashoff area.

(viii) One (1) plastic parts oven tunnel which consists of two (2) zones, Topcoat Oven Zone #1 and Topcoat Oven Zone #2 each zone with a maximum heat input capacity of 2.6 MMBtu/hr burner controlled by one (1) RTO, identified as Bumper RTO with stack ID 2029.

(ix) One (1) natural gas-fired air makeup unit, equipped with a two-stage burner, with a combined maximum heat input capacity of 19.0 MMBtu/hr.

(M) Miscellaneous cleaning and purge operation – plastics painting, consisting of the following:

(i) Purge and clean-up solvent usage and recovery system, identified as PO-05, including virgin solvent distribution, day tanks, small portable containers including containers that meet the definition of cold cleaners, and spent solvent recovery.

(N) One (1) Plastic parts touchup booth, identified as PO-17, using dry filters for particulate control and manual application systems.

(O) Two (2) painted/raw plastic parts regrind machines, identified as PO-15 and PO-16.

(P) Two (2) plastic flash torches, with a maximum heat input capacity of 0.10 MMBtu/hr each, identified as PO-14 and PO-19.

(Q) Final Assembly Operations:

(i) Assembly window install and miscellaneous operations, identified as AF-01, with a capacity of 70 units per hour, consisting of all coatings, sealers, lubricants and related cleaning solvents used for auto assembly, including processes used to install window glass in vehicles, including body primer, glass cleaner, glass primer, and glass adhesive. Includes robotic and manual application equipment, coating delivery/circulation systems and raw material storage containers. Under 40 CFR 63, Subpart MMMM, this is considered a new affected source.

(ii) Weld sealer process using manual and robotic weld sealer application equipment, material delivery systems and raw material storage, identified as WE-01.

Insignificant Activities:

(A) Painting Operations:

(i) Topcoat in-line repair, which includes repair area for small interior topcoat, imperfections, manual application equipment, identified as PA-09. Under 40 CFR 63, Subpart MMMM, this is considered a new in-line repair operation.

(ii) Final repair, identified as PA-12, which includes repair coating booths and general areas, using manual application systems, and IR curing equipment. Under 40 CFR 63, Subpart MMMM, this is considered a new final repair operation.

(iii) Final repair, identified as PA-13, using air dry materials and manual application system. Under 40 CFR 63, Subpart MMMM, this is considered a new final repair operation.

(iv) Paint Mix Rooms (Emissions accounted for in the emission determinations at each respective source). All storage containers and mixing vessels associated with affected source are subject to the requirements of 40 CFR 63, Subpart MMMM.

(v) One (1) Plastic parts touchup booth, identified as PO-17, using dry filters for particulate control and manual application systems.

(B) 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

(i) One (1) natural gas-fired air makeup unit for the Primer/Surfacer sanding and inspection booth (PA-06), with a maximum heat input capacity of 6.4 MMBtu/hr

Non applicable portions of the NESHAP will not be included in the permit. The following sections of 40 CFR Part 63, Subpart IIII shall be applicable to the above emission units:

40 CFR Part 63.3080
40 CFR Part 63.3081
40 CFR Part 63.3082(a), (b), (c), (d), (e)
40 CFR Part 63.3083(a)(2), and (d)
40 CFR Part 63.3090
40 CFR Part 63.3092 through 40 CFR Part 63.3094
40 CFR Part 63.3100
40 CFR Part 63.3101
40 CFR Part 63.3110(a) and (b)
40 CFR Part 63.3120
40 CFR Part 63.3130
40 CFR Part 63.3131
40 CFR Part 63.3150 through 40 CFR Part 63.3152
40 CFR Part 63.3160(a), (c)
40 CFR Part 63.3161
40 CFR Part 63.3162 Reserved
40 CFR Part 63.3163(a), (b), (c), (d) (e), (f), (g), and (h)
40 CFR Part 63.3164 through 40 CFR Part 63.3166
40 CFR Part 63.3167(a) and (f)
40 CFR Part 63.3168(a), (b), (c)(1), (3), and (g)
40 CFR Part 63.3170(a)
40 CFR Part 63.3171
40 CFR Part 63.3172 Reserved
40 CFR Part 63.3173
40 CFR Part 63.3175
40 CFR Part 63.3176
Table 1 to Subpart IIII of Part 63
Table 2 to Subpart IIII of Part 63
Table 3 to Subpart IIII of Part 63
Table 4 to Subpart IIII of Part 63
Appendix A to Subpart IIII of Part 63

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart IIII.

(4) 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines - This subpart applies to any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

The following existing generators and pumps at the source are considered new stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source with commencement of construction on or after June 12, 2006. These engines are not subject to any of the requirements in this Subpart ZZZZ because of their sizes and their limited usage as emergency units.

| **Emergency Generators/Fire Pumps ID** | **Site Rating (HP)** |
|---|---|
| Generator, FAC-81 | 133 |
| Generator, FAC-86 | 158 |
| Generator, FAC-89 | 133 |
| Generator, FAC-115 | 133 |
| Fire Pump, FAC-82 | 183 |
| Fire Pump, FAC-83 | 183 |
| Generator, FAC-145 | 5.5 (spark ignition) |
| Generator, FAC-175 | 5.5 (spark ignition) |

The following existing emergency generators at the source are considered new stationary RICE with a site rating of more than 500 brake HP located at a major source with commencement of construction on or after December 19, 2002 are subject to this Subpart ZZZZ:

| **Emergency Generators/Fire Pumps ID** | **Site Rating (HP)** |
|---|---|
| Generator, FAC-84 | 757 |
| Generator, FAC-85 | 757 |

Non applicable portions of the NESHAP will not be included in the permit. The following sections of 40 CFR Part 63, Subpart ZZZZ shall be applicable to the above emission units:

40 CFR Part 63.6580
40 CFR Part 63.6585
40 CFR Part 63.6590(2)(i)
40 CFR Part 63.6595(5)
40 CFR Part 63.6605
40 CFR Part 63.6640(f)(i),(ii),(iii)
40 CFR Part 63.6645(f)

(5) 40 CFR Part 63, Subpart WWWW - National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production - The two (2) plastic parts injection molding machines, identified as PO-06 and PO-07, are not subject to 40 CFR Part 63, Subpart WWWW, because they are not used to produce fiberglass parts or reinforced plastic composites.

(6) 40 CFR Part 63, Subpart T – Standards for Halogenated Solvent Cleaning: The existing eight (8) cold cleaner degreasers, identified as ST-02, MS-02, WE-07, AF-05, VQ-01, PA-27, PO-20 and FAC-176, which are classified as insignificant activities are not subject to this rule because they do not use any halogenated solvent for cleaning.

(7) 40 CFR Part 63, Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters: This rule has been finalized on March 21, 2011, however, it has been stayed as of May 16, 2011. Additionally, since the state rule, 326 IAC 20-95

incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 would also not be in effect.

**State Rule Applicability - Entire Source**

(a) 326 IAC 1-6-3 (Preventive Maintenance Plan)
The source is subject to 326 IAC 1-6-3.

(b) 326 IAC 1-5-2 (Emergency Reduction Plans)
The source which is subject to 326 IAC 1-5-2 has submitted their Emergency Reduction Plans on January 23, 2009.

(c) 326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC is greater than 250 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(1), annual reporting is required. An emission statement shall be submitted by July 1, 2012 and every year thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

(d) 326 IAC 5-1 (Opacity Limitations)
This source is subject to the opacity limitations specified in 326 IAC 5-1-2(1), which limits the opacity as follows:

(1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period.

(2) 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.

(e) 326 IAC 2-2 (Prevention of Significant Deterioration)
**PSD/Part 70 Operating Permit No. 031-23360-00026, issued on October 19, 2006 -**
Honda Manufacturing of Indiana, LLC. is an existing major PSD source, with an initial PSD permit, 031-23360-00026, issued on October 19, 2006. This PSD permit authorized the initial construction of the automobile and light-duty truck manufacturing plant. This PSD permit limited the source vehicle production to 250,000 vehicles per year, with the VOC, PM, PM10 and $NO_x$ emissions from this source reviewed pursuant to the requirements of 326 IAC 2-2 (PSD). BACT for VOC was determined to be a combination of source-wide yearly limit, and coating emissions limit, specific application methods, and the use of Regenerative Thermal Oxidizers (RTOs). BACT for $NO_x$ was determined to be a combination of lb $NO_x$ per MMBtu emission limits, the use of only low-$NO_x$ natural gas burners, and a limit on source-wide natural gas combustion. The source-wide natural gas combustion likewise limited the CO emissions to avoid the requirements of PSD for this pollutant. The PTE of $SO_2$ was less than the PSD significance level and therefore was not subject to the requirements of PSD.

**PSD/SSM No.031-24760-00026, issued on September 18, 2007 -**
Honda at this time had not started construction of the plant. Honda applied to change the original size, design and number of emission units (process heaters, burners, ovens, generators, storage tanks, etc.) and added new emission units (degreasers, robotic welding stations, etc.). The PSD BACT limits that were originally required for these emission units were re-evaluated.

**PSD/SSM No. 031-25695-00026, issued on April 25, 2008** -
Honda applied for a permit to change the sizes of PSD emission units, forty-three (43) heaters, addition of another combustions units, change in the PSD BACT required for the Backout/Cavity Wax Booth (PA-11) due to a cost effectiveness issue and the removal of the Gasoline Dispensing Operation (AF-02) PSD BACT requirement for a separate Stage 2 vapor recovery system when filling up some of the manufactured vehicles that already have on-board refueling vapor recovery system (ORVR).

**SSM No. 031-30713-00026, issued on September27, 2011**
Honda applied to modify existing emission units by constructing additional robots at the Primer/Surfacer Coating Line (PA-05), the Topcoat Coating Operation (PA-07), and the Plastic Parts Coating Line (PO-02), and to install a new storage tank at the tank farm. The source has provided information as part of the application for this approval that the modification is not subject to the requirements of 326 IAC 2-2, PSD for VOC, PM PM10 and PM2.5, based upon the baseline actual to projected actual (ATPA) test. Likewise, the source will continue to comply with the existing PSD BACT emission limitations, pursuant to 326 IAC 2-2-3 (BACT Technology) required for these modified existing emission units.

**State Rule Applicability – Individual Facilities**

(a) 326 IAC 6-2 (Particulate Emission Limitations from Indirect Heating)
The following facilities are subject to 326 IAC 6-2-4, (Particulate Emission Limitations for Sources of Indirect Heating). The indirect combustion units at the source are currently limited to Particulate emissions of 0.41 lb /MMBtu of heat input. However, the source has made some changes and installed more indirect combustion units than originally permitted, thus making the limit more stringent at 0.38 lb/MMBtu of heat input:

- FAC-20, FAC-26 through FAC-30, FAC-32, FAC-36, FAC-37, FAC-39 through FAC-41, FAC-43 through FAC-80, FAC-110, FAC-117 through FAC-140, FAC-146 through FAC-169, PA-05 (surfacer flash off #1 heater, surfacer flash off #2 heater, surfacer ove zone 1 and surfacer ove zone 2), PA-07 (basecoat flash off #1 heater, basecoat flash off #2 heater, topcoat oven zone 1 and topcoat oven zone 2), PO-02 (topcoat oven zone 1 and topncoat oven zone 2).

This rule limits the particulate emissions to 0.38 pound per million Btu heat input from each of these facilities using the following equation:

Pt = 1.09/(Q^0.26)

Where:
Pt = Pounds of particulate matter emitted per million Btu (lb/mmBtu) heat input
Q = Total Source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat input

Q = 58.3 mmBtu heat input
Pt = 0.38 lb/mmBtu of heat input

Each emission unit is in compliance with the PM emission limit of 0.38 lb/MMBtu, using natural gas with PM emissions of 0.0076 lb/MMBtu.

(b) 326 IAC 8-2-2 (Automobile and Light-Duty Truck Coating Operations)
This rule applies to the existing automobile and light-duty truck assembly plant, which limits the VOC 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 as follows:

(1) 0.23 kilograms per liter of coating (1.9 pounds per gallon), excluding water, delivered to the applicator from prime application, flash-off area and oven operations.

(2) 0.34 kilograms per liter of coating (2.8 pounds per gallon) excluding water, delivered to the applicator from topcoat application, flash-off area and oven operations.

(3) 0.58 kilograms per liter of coating (4.8 pounds per gallon) excluding water, delivered to the applicator from final repair application, flash-off area and oven operations.

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:

$$A = \frac{\sum_{i=1}^{n} (C_i)(U_i)}{\sum_{i=1}^{n} (U_i \times (1-D_i))} \times (1-CE)$$

where:
A = daily or monthly volume weighted average, lb VOC/gal less water
C = VOC content of coating $_i$, lb VOC/gal
U = maximum coating $_i$ usage, gal/day or gal/month
D = coating$_i$ volume % water
n = no. of coatings used during the day or month
CE= overall control efficiency of the control system

(c) Pursuant to 326 IAC 8-1-2 (Compliance Methods)
Pursuant to 326 IAC 8-1-2(a), the Permittee chose to install thermal incinerators, higher solids (low solvent) coatings, and waterborne coatings, to comply with the VOC limits in 326 IAC 8-2-2. Therefore, no equivalency limits are necessary as required in 326 IAC 8-1-2(a)(5), (b), and (c).

(d) 326 IAC 2-4.1-1 (New Source Toxics Control)
This rule is not applicable to the proposed source, because it is subject to NESHAP.

(e) 326 IAC 8-1-6 (General Reduction Requirements)

(1) Plastic coating operation – The entire source was subject to PSD BACT requirements, pursuant to 326 IAC 2-2-3 (PSD Rule: Control Technology Review Requirements), including the plastic coating operation. The PSD BACT determined for the plastic coating operation shall satisfy the requirements of 326 IAC 8-1-6 (General Reduction Requirements).

(2) Plastic injection molding operation - The PSD BACT requirements included the plastic injection molding operation. However, the injection molding is not subject to 326 IAC 8-1-6 because its VOC potential emission is less than 25 tons per year.

(3) All surface coating operations subject to 326 IAC 8-2-2 are not subject to 326 IAC 8-1-6.

(f) 326 IAC 8-3-2 (Cold Cleaner Operations) Volatile Organic Compounds -
The eight (8) cold cleaner degreasers, identified as ST-02, MS-02, WE-07, AF-05, VQ-01, PA-27, PO-20 and FAC-176 (insignificant activities) are subject to 326 IAC 8-3-2. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations constructed after January 1, 1980, the owner or operator shall:

(1) Equip the cleaner with a cover;

(2) Equip the cleaner with a facility for draining cleaned parts;

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

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

(5) Provide a permanent, conspicuous label summarizing the operation requirements;

(6) 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.

(g) 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control) Volatile Organic Compounds (VOC) - The eight (8) cold cleaner degreasers, identified as ST-02, MS-02, WE-07, AF-05, VQ-01, PA-27, PO-20 and FAC-176 are subject to 326 IAC 8-3-5. Pursuant to 326 IAC 8-3-5(a), the owner or operator of a cold cleaner degreaser facility construction of which commenced after July 1, 1990, 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$^{O}$C) (one hundred degrees Fahrenheit (100$^{O}$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$^{O}$C) (one hundred degrees Fahrenheit (100$^{O}$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$^{O}$C) (one hundred degrees Fahrenheit (100$^{O}$F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9$^{O}$C) (one hundred twenty degrees Fahrenheit (120$^{O}$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 of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(h) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, 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.

(i) 326 IAC 8-4-6 (Gasoline Dispensing Facilities) and 326 IAC 8-4-9 (Leaks from Transports and Vapor Collection Systems, Records) - This rule requirements were determined in PSD/TV 031-23360-00026 to be applicable to the gasoline dispensing facility, identified as AF-02 which also were determined to be the PSD BACT, pursuant to 326 AC 2-2-3 (Best Available Control technology) for this facility. The requirements under 326 IAC 8-4-6 are as follows:

(1) The Permittee shall not allow the transfer of gasoline between any transport and any storage tank unless such tank is equipped with the following:

(i) A submerged fill pipe that extends to not more than six (6) inches from the bottom of the storage tank.

(ii) 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.

(iii) A vapor balance system connected between the tank and the transport, operating according to manufacturer's specifications. The Stage I vapor recovery system shall be in operation at all times when the one (1) gasoline storage tank, identified as FAC-99 is in operation, and the use of on-board vapor recovery (ORVR) system on a minimum of 95% of the vehicles manufactured.

(2) If the owner or employees of the owner of a gasoline dispensing facility are not present during loading, it shall be the responsibility of the owner or the 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 manufacturer's specifications.

(3) All vapor collection and control systems shall be retested for vapor leakage and blockage, and successfully pass the test, at least every five (5) years or upon major system replacement or modification. A major system modification is considered to be replacing, repairing, or upgrading seventy-five percent (75%) or more of a vapor collection and control system of a facility.

The requirement under 326 IAC 8-4-9 (Leaks from transports and vapor collection systems, records) are as follows:

(1) No person shall allow a gasoline transport that is subject to this rule and that has a capacity of two thousand (2,000) gallons or more to be filled or emptied unless the gasoline transport completes the following:

(i) Annual leak detection testing before the end of the twelfth (12th) calendar month following the previous year's test, according to test procedures contained in 40 CFR 63.425 (e), as follows:

(A) Conduct the pressure and vacuum tests for the transport's cargo tank using a time period of five (5) minutes. The initial pressure for the pressure test shall be four hundred sixty (460) millimeters H2O (eighteen (18) inches H2O) gauge. The initial vacuum for the vacuum test shall be one hundred fifty (150) millimeters H2O (six (6) inches H2O) gauge. The maximum allowable pressure or vacuum change is twenty-five (25) millimeters H2O (one (1) inch H2O) in five (5) minutes.

(B) Conduct the pressure test of the cargo tank's internal vapor valve as follows:

(a) After completing the test under clause (A) of this condition, use the procedures in 40 CFR 60, Appendix A, Method 27 to repressurize the tank to four hundred sixty (460) millimeters H2O (eighteen (18) inches H2O) gauge. Close the transport's internal vapor valve or valves, thereby isolating the vapor return line and manifold from the tank.

(b) Relieve the pressure in the vapor return line to atmospheric pressure, then reseal the line. After five (5) minutes, record the gauge pressure in the vapor return line and manifold. The maximum allowable five (5) minute pressure increase is one hundred thirty (130) millimeters H2O (five (5) inches H2O).

(ii) Repairs by the gasoline transport owner or operator, if the transport does not meet the criteria of subdivision (1) of this condition, and retesting to prove compliance with the criteria of subdivision (1) of this condition.

(2) The annual test data remain valid until the end of the twelfth (12th) calendar month following the test. The owner of the gasoline transport shall be responsible for compliance with subsection (a) of this condition, and shall provide the owner of the loading facility with the most recent valid modified 40 CFR 60, Appendix A, Method 27 test results upon request. The owner of the loading facility shall take all reasonable steps, including reviewing the test date and tester's signature, to ensure that gasoline transports loading at its facility comply with subsection (a) of this condition.

(3) The Permittee shall:

(i) Design and operate the applicable system and the gasoline loading equipment in a manner that prevents:

(a) Gauge pressure from exceeding four thousand five hundred (4,500) pascals (eighteen (18) inches of H2O) and a vacuum from exceeding one thousand five hundred (1,500) pascals (six (6) inches of H2O) in the gasoline transport;

(b) A reading equal to or greater than twenty-one thousand (21,000) parts per million as propane, from all points on the perimeter of a potential leak source when measured by the method referenced in 40 CFR 60, Appendix A, Method 21, or an equivalent procedure approved by the commissioner during loading or unloading operations at gasoline dispensing facilities, bulk plants, and bulk terminals; and

(c) Avoidable visible liquid leaks during loading or unloading operations at gasoline dispensing facilities, bulk plants, and bulk terminals.

(ii) Within fifteen (15) days, repair and retest a vapor balance, collection, or control system that exceeds the limits in subdivision (1) of this condition.

(4) The department may, at any time, monitor a gasoline transport, vapor balance, or vapor control system to confirm continuing compliance with (a) of this condition.

(5) If the commissioner allows alternative test procedures, such method shall be submitted to the U.S. EPA as a SIP revision.

(6) During compliance tests conducted under 326 IAC 3-6 (stack testing), each vapor balance or control system shall be tested applying the standards described in subsection (c)(1)(B) of this condition. Testers shall use 40 CFR 60, Appendix A, Method 21 to determine if there are any leaks from the hatches and the flanges of the gasoline transports. If any leak is detected, the transport cannot be used for the capacity of the compliance test of the two (2) gasoline storage tanks, identified as FAC-99 and FAC-101, and the one (1) gasoline dispensing unit, identified as AF-102. The threshold for leaks shall be ten thousand (10,000) parts per million methane.

(j) 326 IAC 8-2-9 (Miscellaneous Metal Coating) -
326 IAC 8-2-9 applies to facilities which commences construction after July 1, 1990, located in any county and which have actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls. This rule applies to the following:

(1) Large and small farm machinery.

(2) Small household appliances.

(3) Office equipment.

(4) Industrial machinery.

(5) Any other industrial category which coats metal parts or products under the Standard Industrial Classification Code of major groups #33, #34, #35, #36, #37, #38, and #39.

The blackout/cavity wax, PA-11, is subject to 326 IAC 8-2-9 which limits the VOC emissions to 3.5 pounds/gallon less water delivered to a coating applicator that applies extreme performance coatings.

(k) 326 IAC 6-3-2 (Particulate Emission Limitations, Work Practices, and Control Technologies) - 326 IAC 6-3 (Control Technology Requirements for Particulate Emissions is not applicable to the existing source because it is subject to 326 IAC 2-2-3 (PSD Rule: Control Technology Review Requirements), where Particulate emission limitations have been established.

(l) 326 IAC 7-1 (Sulfur Dioxide Emission Limitations)
This rule does not apply to the combustion emission units at the source because they do not have the potential to emit twenty-five (25) tons per year or ten (10) pounds per hour of SO2.

**Compliance Determination and Monitoring Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance determination requirements applicable to this source are as follows:

| Emission Unit | Control Device | Pollutant | Frequency of Testing |
|---|---|---|---|
| E-Coat Line, PA-02 (E-coat tank, rinse stage, and drying oven) | Body Oven RTO | VOC | Once every 2.5 years |
| Primer/ Surfacer Coating Line, PA-05 (drying oven) | Body Oven RTO | VOC | Once every 2.5 years |
| Topcoat Lines #1 and #2, PA-07 (clearcoat booths) | Body Booth RTO | VOC | Once every 2.5 years |
| Plastic Parts Coating Line, PO-02 (clearcoat booth) | Bumper RTO | VOC | Once every 2.5 years |
| Primer/Surfacer Coating Line, PA-05 | Polymer Emulsion Wash System | PM/PM10 | Once every 2.5 years |
| Topcoat Lines #1 and #2 (2 basecoat booths and 2 clearcoat booths) | Polymer Emulsion Wash System and dry filters | PM/PM10 | Once every 2.5 years |
| Plastic Parts Coating Line, PO-02 | Polymer Emulsion Wash System | PM/PM10 | Once every 2.5 years |

The compliance monitoring requirements applicable to this source are as follows:

| Emission Unit | Control Device | Parameter | Frequency | Range | Excursions and Exceedances |
|---|---|---|---|---|---|
| E-Coat Line, PA-02 (E-coat tank, rinse stage, and drying oven) | Body Oven RTO | Temperature, Duct pressure or fan amperage or fan Hertz | Continuous/ once every minute | 1400 $^{O}$F until a temperature is established from the most recent compliance stack test | Response Steps |
| Primer/ Surfacer Coating Line, PA-05 drying oven | Body Oven RTO | Temperature, Duct pressure or fan amperage or fan Hertz | Continuous/ once every minute | 1400 $^{O}$F until a temperature is established from the most recent compliance stack test | Response Steps |
| Topcoat Lines #1 and #2, PA-07 Clearcoat booths | Body Booth RTO | Temperature, Duct pressure or fan amperage or fan Hertz | Continuous/ once every minute | 1400 $^{O}$F until a temperature is established from the most recent compliance stack test | Response Steps |
| Plastic Parts Coating Line, PO-02 clearcoat booth | Bumper RTO | Temperature, Duct pressure or fan amperage or fan Hertz | Continuous/ once every minute | 1400 $^{O}$F until a temperature is established from the most recent compliance stack test | Response Steps |

| Emission Unit | Control Device | Parameter | Frequency | Range | Excursions and Exceedances |
|---|---|---|---|---|---|
| Primer/Surfacer Coating Line, PA-05 | Polymer Emulsion Wash System | Visual checks of each booth flood pans and water/polymer emulsion circulation.<br><br>Warning system to ensure water circulation pump is operational | Once Daily | - | Response Steps- required if water/polymer emulsion is not flowing freely and alarm goes off |
| | Dry filters | Placement inspection | Once Daily | - | Response Steps- required if overspray is visible on the rooftops and nearby ground |
| Topcoat Lines #1 and #2 (2 basecoat booths and 2 clearcoat booths) | Polymer Emulsion Wash System | Visual checks of each booth flood pans and water/polymer emulsion circulation.<br><br>Warning system to ensure water circulation pump is operational | Once Daily | - | Response Steps- required if water/polymer emulsion is not flowing freely and alarm goes off |
| | Dry filters | Placement inspection | Once Daily | - | Response Steps - required if overspray is visible on the rooftops and nearby ground |
| Plastic Parts Coating Line, PO-02 | Polymer Emulsion Wash System | Visual checks of each booth flood pans and water/polymer emulsion circulation.<br><br>Warning system to ensure water circulation pump is operational | Daily | - | Response Steps- required if water/polymer emulsion is not flowing freely and alarm goes off |

## Recommendation

The staff recommends to the Commissioner that the Part 70 Operating 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 application for the purposes of this review was received on January 18, 2011. Additional information was received on April 29, 2011.

## Conclusion

The operation of this automobile and light-duty trucks manufacturing plant shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. 031-30127-00026.

## IDEM Contact

(a) Questions regarding this proposed permit can be directed to Aida DeGuzman at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-4972 or toll free at 1-800-451-6027 extension (3-4972).

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

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

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



**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

| | | Uncontrolled PTE (tpy) | | | | | | | | Limited PTE (tpy) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Emission Units** | **Page** | **NOx** | **CO** | **PM** | **PM10** | **SO2** | **VOC** | **HAPs** | **GHGs** | **NOx** | **CO** | **PM** | **PM10** | **SO2** | **VOC** | **HAPs** | **GHGs** |
| ***Painting Operations*** | | | | | | | | | | | | | | | | | |
| E-Coat Line (PA-02) | 2 | | | | | | 48.77 | 0.00 | | | | | | | 2.44 | 0.00 | |
| Sealer/Deadener (PA-03) | 3 | | | | | | 123.57 | 21.20 | | | | | | | 17.92 | 3.07 | |
| Primer/Surfacer (PA-05) | 4 | | | 217.74 | 217.74 | | 81.69 | 0.94 | | | | 0.75 | 0.75 | | 73.93 | 0.85 | |
| Topcoat Coating Line (PA-07) and the cont | 5 | | | 140.37 | 140.37 | | 275.23 | 130.06 | | | | 0.65 | 0.65 | | 111.68 | 36.24 | |
| Topcoat On-line Repair (PA-07) | 9 | | | 9.26 | 9.26 | | 12.28 | 1.42 | | | | 0.13 | 0.13 | | 12.28 | 1.42 | |
| Misc. Sanding (PA-04, PA-06, PA-08, PA-10) | 6, 7, 8, 11 | | | 10.44 | 10.44 | | | | | | | 0.32 | 0.32 | | | | |
| Topcoat on-line Repair (PA-09) | 10 | | | 0.24 | 0.24 | | 1.08 | 1.35 | | | | 0.24 | 0.24 | | 1.08 | 1.35 | |
| Blackout/Wax Coating Line (PA-11) | 12 | | | 17.46 | 17.46 | | 10.86 | 0.00 | | | | 0.35 | 0.35 | | 10.86 | 0.00 | |
| Final Repair (PA-12) | 13 | | | 2.59 | 2.59 | | 2.41 | 0.86 | | | | 0.05 | 0.05 | | 2.41 | 0.86 | |
| Final Repair - Air Dry (PA-13) | 14 | | | 0.11 | 0.11 | | 0.51 | 0.61 | | | | 0.11 | 0.11 | | 0.51 | 0.61 | |
| Misc. Cleaning & Purge (PA-14) | 15 | | | 0.00 | 0.00 | | 67.09 | 109.39 | | | | 0.00 | 0.00 | | 67.09 | 109.39 | |
| Paint Test Lab (PA-16) | 16 | | | 0.05 | 0.05 | | 0.05 | 0.01 | | | | 0.00 | 0.00 | | 0.05 | 0.01 | |
| Paint Effluent System (PA-17) | 17 | | | 0.00 | 0.00 | | 4.01 | 0.00 | | | | 0.00 | 0.00 | | 4.01 | 0.00 | |
| Wheelabrator/Shotblaster (PA-15) | 18 - 21 | | | 13.14 | 13.14 | | 0.00 | 0.00 | | | | 0.02 | 0.02 | | 0.00 | 0.00 | |
| ***Plastic Operations*** | 1 | | | | | | | | | | | | | | | | |
| Fascia/Bumper Coating Line (solvent BC) (PO-02) | 22 | | | 196.00 | 196.00 | | 246.36 | 24.11 | | | | 1.96 | 1.96 | | 51.80 | 7.71 | |
| Fascia/Bumper Coating Line (water BC) (PO-02) | 23 | | | 23.91 | 23.91 | | 185.98 | 23.24 | | | | 1.84 | 1.84 | | 92.28 | 16.42 | |
| IP Painting Line (PO-03) | 24 | | | 0.40 | 0.40 | | 6.47 | 1.15 | | | | 0.40 | 0.40 | | 6.47 | 1.15 | |
| BPa Polishing (PO-04) | 26 | | | 0.00 | 0.00 | | 0.34 | 0.00 | | | | 0.00 | 0.00 | | 0.34 | 0.00 | |
| Misc. Cleaning & Purge (PO-05) | 27 | | | 0.00 | 0.00 | | 28.35 | 3.34 | | | | 0.00 | 0.00 | | 28.35 | 3.34 | |
| Plastic Injection Molding (PO-06, PO-07) | 28 | | | 0.00 | 0.00 | | 7.45 | 0.00 | | | | 0.00 | 0.00 | | 5.70 | 0.00 | |
| Plastic Pellet Storage Silos (PO-11, PO-12) | 29 | | | 0.13 | 0.13 | | 0.00 | 0.00 | | | | 0.13 | 0.13 | | 0.00 | 0.00 | |
| ***Misc. Operations*** | | | | | | | | | | | | | | | | | |
| NG Combustion (PA and FAC Emission Units) | 30 - 33 | 113.48 | 129.80 | 11.59 | 11.59 | 0.96 | 8.48 | 2.90 | 186,321 | 50.00 | 91.50 | 3.70 | 3.70 | 0.30 | 2.70 | 0.92 | 186,321 |
| Emergency Generators & Firepumps | 34, 35 | 18.98 | 4.09 | 1.35 | 1.35 | 1.26 | 1.54 | 0.02 | | 18.98 | 4.09 | 1.35 | 1.35 | 1.26 | 1.54 | 0.02 | |
| Weld Sealer Process (WE-01) | 36 | | | 0.00 | 0.00 | | 3.91 | 0.01 | | | | 0.00 | 0.00 | | 3.91 | 0.01 | |
| Body Welding (WE-02) & Finishing (WE-03) | 37 | | | 1.03 | 1.03 | | 5.11 | 0.00 | | | | 0.01 | 0.01 | | 5.11 | 0.00 | |
| Cooling Towers | 38 | | | 2.60 | 2.60 | | | | | | | 2.60 | 2.60 | | 0.00 | 0.00 | |
| Storage Tanks | 39 | | | 0.00 | 0.00 | | 9.97 | 4.41 | | | | 0.00 | 0.00 | | 9.97 | 4.41 | |
| Gas & Wwfluid Dispensing (AF-02, AF-03) | 40 | | | 0.00 | 0.00 | | 0.81 | 0.34 | | | | 0.00 | 0.00 | | 0.81 | 0.34 | |
| Roadways | 41, 42 | | | 6.14 | 2.68 | | | | | | | 6.14 | 2.68 | | | | |
| **Total PTE (tons/yr)** | | **132.46** | **133.89** | **630.64** | **627.18** | **2.22** | **946.33** | **302.14** | **186,321** | **68.98** | **95.59** | **18.90** | **15.44** | **1.56** | **461.43** | **180.43** | **186,321** |

**Notes:**
The uncontrolled and controlled PTEs (tpy) of VOC from the Plastic Painting Line (PO-02) are based on the worst case emissions.

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Electrodeposition (E-coat) Coating Line (PA-02) 250,000 units/yr units/hr
**Emission Unit Description:** Source includes electrodeposition coating dip tank, rinse stages and curing oven. curing oven

**VOC EMISSIONS CALCULATIONS**

| Material Name | (gal/unit) | Material Usage (gal/yr) | VOC Content (lb VOC/gal) | Uncontrolled VOC PTE tons/yr | Tank/Oven Capture (%) | Incinerator Efficiency (%) | Controlled VOC PTE (tons/year) | Solids Content (%vol) | TE | Applied Solids (gal/yr) | HAP Content (lb/gal) | HAP Emissions (lb/yr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Paste | 0.342 | 85,500 | 0.91 | 38.90 | 100.0% | 95.0% | 1.95 | 31.61% | 100% | 27,027 | 0.00 | 0 |
| Resin | 1.767 | 441,750 | 0.04 | 8.84 | 100.0% | 95.0% | 0.44 | 34.24% | 100% | 151,255 | 0.00 | 0 |
| E-Coat Flow Control Additive | 0.001 | 250 | 8.27 | 1.03 | 100.0% | 95.0% | 0.05 | 0.00% | 100% | 0 | 0.00 | 0 |
| E-Coat pH Control Additive | - | 0 | 8.80 | 0 | 100.0% | 95.0% | 0.00 | 0.00% | 100% | 0 | 0.00 | 0 |
| | | 527,500 | | **48.77** | | | **2.44** | | | **178,282** | | |

**0.51** **lb/gal < water uncontrolled**
**0.03** **lb/gal < water controlled**

**Controlled)** **0.03** **lb/gal coating solids (lb/gacs)**

| Material Name | Volume % Water | Material Usage Less Water (gal/yr) | Pounds of VOC Per Year (lb/yr) |
|---|---|---|---|
| Paste | 56.25% | 37406.25 | 77805 |
| Resin | 65.2% | 153640.65 | 17670 |
| E-Coat Flow Control Additive | 0.0% | 250 | 2067.5 |
| E-Coat pH Control Additive | - | 0 | 0 |
| TOTAL | | 191296.9 | 97542.5 |

Note: The entire E-Coat operation (E-Coat Tank, rinse up to the oven) is all 100% captured.
Methodology:
Uncontrolled PTE, ton/yr = gal/yr usage * lb VOC or HAP/gal * ton/2000 lb
Controlled PTE, tons/yr = Uncontrolled PTE, tons/yr * (1-%capture *%control)
lb/gacs after control = VOC emissions after control, lbs/yr * yr/gallons, solids applied
Material Usage Less water= gal/yr usage * (1-Volume % water)
Pounds of VOC/yr = gal/yr usage * lb VOC/gal
Pounds of VOC/gal less water = lb of VOC/yr /gal/yr usage * lb VOC/gal * (1-(%capture* %destruction))

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Sealer/Deadener Coating Process (PA-03) **250,000 units/yr** **73 units/hr**
**Emission Unit Description:** Sealer/Deadener & LASD Process

| Chemical | (gal/unit) | Material Usage (gal/yr) | Density of Coating (lb/gal) | VOC Content (lb VOC/gal) | HAP Content (lb HAP/gal) | Uncontrolled Emissions VOC (tons/year) | Uncontrolled Emissions HAP (tons/year) | Oven Capture (%) | Incinerator Efficiency (%) | Emissions after control VOC (tons/year) | Emissions after control HAP (tons/year) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Deadener | 1.103 | 275,750 | 10.51 | 0.29 | 0.11 | 40 | 15 | 90.0% | 95.0% | 6 | 2 |
| Sealer | 0.804 | 201,000 | 12.20 | 0.17 | 0.06 | 17 | 6 | 90.0% | 95.0% | 2 | 1 |
| LASD | 1.400 | 350,000 | 12.91 | 0.38 | 0.00 | 67 | 0 | 90.0% | 95.0% | 10 | 0 |
| **Total (tons)** | | **826,750** | | | | **123.57** | **21.20** | | | **17.92** | **3.07** |

**0.0434** lb/gal <0.30 lb/gal BACT limit

There is no particulate emissions (PM) from the sealer or deadener operation because no overspray results when the material is sprayed, however, drips occur due to the material's consistency (caulk type material).

Methodology:
Uncontrolled PTE = gal/yr usage * lb/gal VOC or HAP content * ton/2000 lbs
Controlled PTE = tons/yr uncontrolled PTE*(1- %oven capture*% incinerator efficiency)

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Primer/Surfacer (Guidecoat) Coating Line (PA-05) — 250,000 units/yr — 80 units/hr
**Emission Unit Description:** Source includes guidecoat coating booth, robotic and manual application equipment, guidecoat curing oven, coating circulation systems and raw material storage.

## ANNUAL EMISSION CALCULATIONS

| Annual VOC & HAP Emission Calculations | | | As Applied | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Material | VOC | HAP | Uncontrolled Emissions | | Booth | Oven | Incinerator | Emissions after control | |
| | | Usage | Content | Content | VOC | HAP | Capture | Capture | Efficiency | VOC | HAP |
| Chemical | (gal/unit) | (gal/yr) | (lb VOC/gal) | (lb HAP/gal) | (lb/yr) | (lb/yr) | (%) | (%) | (%) | (lb/yr) | (lb/yr) |
| Chip primer | 0.040 | 10,000 | 2.20 | 0.00 | 22,000 | 0 | 0.00% | 10.00% | 95.00% | 19,910 | 0 |
| Primer - waterborne | 0.754 | 188,500 | 0.75 | 0.01 | 141,375 | 1,885 | 0.00% | 10.00% | 95.00% | 127,944 | 1,706 |
| **Total** | | **198,500** | | | **81.69** | **0.94** | | | | **73.93** | **0.85** |

| Annual PM Emission Calculations | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Material | Coating | Solid | Total | Transfer | Uncontrolled | Waterwash | Recirc. | Recir. Filter | Emissions | Solids | Solids |
| | | Usage | Density | Content | Solids | Efficiency | Emissions | Efficiency | Filter | Efficiency | after Control | Content | Applied |
| Chemical | (gal/unit) | (gal/yr) | (lb/gal) | (%wt) | (lb/yr) | (%) | (lb PM/yr) | (%) | Capture (%) | (%) | (lb PM/yr) | (%vol) | (gal/yr) |
| Chip primer | 0.040 | 10,000 | 8.52 | 25.10% | 21,385 | 50.00% | 10,693 | 99.00% | 66.39% | 99.00% | 36.65 | 18.07% | 904 |
| Primer - waterborne | 0.754 | 188,500 | 10.12 | 55.67% | 1,061,972 | 60.00% | 424,789 | 99.00% | 66.39% | 99.00% | 1,455.92 | 45.43% | 51,381 |
| **Total** | | **198,500** | | | **541.68** | | **217.74** | | | | **0.75** | | **52,285** |

| | | |
|---|---|---|
| lb VOC/gacs | **2.83** | controlled |
| lb/gal less water | **1.39** | uncontrolled |
| lb/gal less water | **1.26** | controlled |

| Material Name | Volume % Water | Material Usage Less Water (gal/yr) | Pounds of VOC Per Year (lb/yr) |
|---|---|---|---|
| Chip Primer | 49.07% | 5093 | 22,000.00 |
| Primer -Waterborne | 40.2% | 112685.3 | 141,375.00 |
| | - | | |
| TOTAL | | 117778.3 | 163375 |

VOC or HAPs Controlled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb * (1-(% booth capture + % oven capture/carry over) * % incinerator DRE)
PM Uncontrolled PTE = usage, gal/yr * coating density, lb/gal * % solids * ton/2000 lb * (1-transfer efficiency)
PM Controlled PTE = Uncontrolled PTE, tons/yr * (1-scubber efficiency) * (1-filter efficiency)
lb/gacs after control = VOC emissions after control, lbs/yr * yr/gallons, solids applied
Material Usage Less water= gal/yr usage * (1-Volume % water)
Pounds of VOC/yr = gal/yr usage * lb VOC/gal
Pounds of VOC/gal less water = lb of VOC/yr /gal/yr usage * lb VOC/gal * (1-(%capture* %destruction))

Note: The worst case PM/PM10 emisssions account for the waterwash removal. However, the waterwash emissions are filtered through dry filters before being discharged into the room.

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Topcoat Coating Line (PA-07)
**Emission Unit Description:** Source includes basecoat coating booths, heated flash areas, clearcoat coating booths & topcoat curing ovens) Clearcoat Auto Zone Booth and Topcoat Oven Control using RTO

| | | units/yr | units/hr |
|---|---|---|---|
| Production | Max | 250,000 | 88 |

## ANNUAL EMISSION CALCULATIONS

| Annual VOC & HAP Emission Calculations | | | As Applied | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Chemical | (gal/unit) | Material Usage (gal/yr) | VOC Content (lb VOC/gal) | Uncontrolled Emissions VOC (lb/yr) | Booth Capture (%) | Oven Capture/Carry Over (%) | Incinerator Efficiency (%) | Emissions after control VOC (lb/yr) | |
| Basecoats - waterborne | 0.637 | 159,250 | 1.14 | 181,545 | 0.00% | 7.50% | 95.0% | 168,610 | |
| Clearcoats | 0.362 | 90,500 | 4.06 | 367,430 | 65.00% | 25.00% | 95.0% | 53,277 | |
| Spot Primer | 0.0010 | 250 | 5.90 | 1,475 | 0.00% | 0.00% | 95.0% | 1,475 | |
| **Total (tons/year)** | | | | **275.23** | | | | **111.68** | |
| | | | | | | | **controlled** | **4.10** | lb/gacs (Topcoat only) |

| Annual PM Emission Calculations | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Material Name | (gal/unit) | Material Usage (gal/yr) | Coating Density (lb/gal) | Solid Content % wt | Total Solids (lb/yr) | Transfer Efficiency % | Uncontrolled Emissions (lb PM/yr) | Scrubber Efficiency (%) | Recirc. Filter Capture Efficiency (%) | Recirc. Filter Efficiency (%) | Emissions after Control (lb PM/yr) | Solids Content (%vol) | Solids Applied (gal/yr) |
| Basecoats - waterborne | 0.637 | 159,250 | 8.62 | 22.76% | 312,434 | 50% | 156,217 | 99.00% | 67.35% | 99.00% | 521 | 25.50% | 20,304 |
| Clearcoats | 0.362 | 90,500 | 8.35 | 65.70% | 496,478 | 75% | 124,120 | 99.00% | 58.86% | 99.00% | 518 | 58.16% | 39,476 |
| Spot Primer | 0.0010 | 250 | 8.53 | 30.78% | 656 | 40% | 394 | 98.00% | 67.35% | 99.00% | 3 | 18.25% | 18 |
| **Total** | | **250,000** | | | **404.78** | | **140.37** | | | | **0.52** | | 59,799 |
| | | | | | | | | | | **TOTAL lb/gacs after control** | | **4.07** | |

| Material Name | Volume % Water | Material Usage Less Water (gal/yr) | Pounds of VOC/year (lb/yr) |
|---|---|---|---|
| Basecoat -waterborne | 0.00% | **159,250** | **168610** |
| Clearcoats | 0.00% | **90,500** | **53277** |
| Spot Primer | 0.00% | **250** | **1475** |
| Topcoat On-Line Repair | | **1,365** | **24560** |
| **TOTAL** | | **251,365** | **247922** |
| | pound/gallon less water | **0.99** | Topcoat Coat Line (PA-07) + Topcoat On-Line Repair |

**Notes:**

1. Basecoat: Estimated 82.5% of VOC emitted in Basecoat Booth, 10% of VOC emitted in Basecoat Flashoff Zone and 7.5% of VOC emitted in topcoat oven.
2. Clearcoat: Estimated 65% of VOC emitted in Clearcoat Booth, 10% in the BC flash oven and 25% of VOC emitted in topcoat oven.

| VOC Emission After Control (lbs/yr) | Solids Applied (gal/yr) | |
|---|---|---|
| 223360 | 59,799 | Topcoat Coat Line (PA-07) |
| 24560 | 1091 | Topcoat Coat On-Line Repair (PA-07) |
| 247,920.00 | 60,889.73 | TOTAL |

## HAP COMPONENT EMISSION CALCULATIONS

| | | HAP Component (lb/gal of coating) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | Material Usage (gal/hr) | Xylene 1330-20-7 | Toluene 108-88-3 | Ethyl benzene 100-41-4 | Formaldehyde 50-00-0 | Cumene 98-82-8 | Methanol 67-56-1 | Naphthalene 91-20-3 | Styrene 100-42-5 | 2-Butoxyethyl Acetate 112-07-2 | Ethylene Glycol Monohexyl Ether 112-25-4 | 2-(2-Butoxy-ethoxy) Ethanol | Chloroform 67-66-3 |
| Basecoats - waterborne | 56.06 | | | | 0.09 | | | | | | 0.11 | 0.11 | |
| Clearcoats | 31.86 | 1.11 | | 0.42 | 0.42 | 0.08 | 0.17 | 0.09 | 0.08 | | | | 0.11 |
| Spot Primer | 0.11 | 0.86 | 1.72 | 0.43 | | | | | | 0.85 | | | |

| | | HAP Component Emissions (tons/year) - before control | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | Material Usage (gal/yr) | Xylene 1330-20-7 | Toluene 108-88-3 | Ethyl benzene 100-41-4 | Formaldehyde 50-00-0 | Cumene 98-82-8 | Methanol 67-56-1 | Naph-thalene 91-20-3 | Styrene 100-42-5 | 2-Butoxyethyl Acetate 112-07-2 | Ethylene Glycol Monohexyl Ether 112-25-4 | 2-(2-Butoxy-ethoxy) Ethanol | Chloroform 67-66-3 |
| Basecoats - waterborne | 159,250.00 | - | - | | 7.17 | | - | - | - | - | **8.76** | **8.76** | - |
| Clearcoats | 90,500.00 | **50.23** | - | **19.01** | **19.01** | **3.62** | **7.69** | **4.07** | **3.62** | - | - | - | **4.98** |
| Spot Primer | 250.00 | 0.11 | 0.22 | 0.05 | - | | - | - | - | **0.11** | - | - | - |
| **Total** | **250,000.00** | **50.23** | **0.22** | **19.01** | **19.01** | **3.62** | **7.69** | **4.07** | **3.62** | **0.11** | **8.76** | **8.76** | **4.98** |

| ANNUAL HAP EMISSIONS | | HAP Component Emissions (tons/yr) - after control | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | Material Usage (gal/yr) | Xylene 1330-20-7 | Toluene 108-88-3 | Ethyl benzene 100-41-4 | Formaldehyde 50-00-0 | Cumene 98-82-8 | Methanol 67-56-1 | Naph-thalene 91-20-3 | Styrene 100-42-5 | 2-Butoxyethyl Acetate 112-07-2 | Ethylene Glycol Monohexyl Ether 112-25-4 | 2-(2-Butoxy-ethoxy) Ethanol | Chloroform 67-66-3 |
| Basecoats - waterborne | 159,250 | | | | **6.66** | | | | | | 8.13 | 8.13 | |
| Clearcoats | 90,500 | **7.28** | - | **2.76** | 2.76 | | 1.12 | 0.59 | 0.52 | | - | - | 0.72 |
| Spot Primer | 250 | 0.11 | 0.22 | 0.05 | - | | - | - | - | 0.11 | - | - | - |
| **Total** | **250,000** | **7.28** | **0.22** | **2.76** | **6.66** | | **1.12** | **0.59** | **0.52** | **0.11** | **8.13** | **8.13** | **0.72** |

| | | | |
|---|---|---|---|
| TOTAL HAP (BeforeControl) | **130.06** | TOTAL HAP (After Control) | **36.24** |
| Worst Single HAP BeforeControl | **50.23** | Worst Single HAP After Control | **8.13** |

Methodology:
VOC or HAPs Uncontrolled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb
VOC or HAPs Controlled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb * (1-(% booth capture + % oven capture/carry over) * % incinerator DRE)
PM Uncontrolled PTE = usage, gal/yr * coating density, lb/gal * % solids * ton/2000 lb * (1-transfer efficiency)
PM Controlled PTE = Uncontrolled PTE, tons/yr * (1-scubber efficiency) * (1-filter efficiency)
lb/gacs after control = VOC emissions after control, lbs/yr * yr/gallons,solids applied

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** E-Coat Sanding/Inspection (PA-04) **250,000 units/yr** **73 units/hr**
**Emission Unit Description:** E-Coat Sanding/Inspection Booth

| PM Emission Calculations | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Uncontrolled PM Emissions | | | PM Emissions after control | |
| Chemical | Area Sanded (sq. ft./unit) | Depth of Sanding (microns) | Depth of Sanding (feet) | Volume of Sanding (cu. ft./unit) | Density of Particulate (lb/cu. ft.) | (lb/hr) | (lb/yr) | Control System Efficiency (%) | (lb PM/hr) | (lb/yr) |
| EDP Coating - scuff | 2.00 | 1.0 | 0.000003 | 0.000007 | 84.29 | 0.0404 | 138.27 | 98.5% | 0.0006 | 2.07 |
| EDP Coating - DA | 4.00 | 10.0 | 0.000033 | 0.000131 | 84.29 | 0.8075 | 2,765.41 | 98.5% | 0.0121 | 41.48 |
| Totals (lbs) | | | | | | 0.848 | 2,903.68 | | **0.013** | 43.56 |
| Totals (tons) | | | | | | | **1.45** | | | **0.022** |

Methodology:
Uncontrolled PM PTE =area sanded, sq.ft/unit * depth of sanding, feet * density, lb/cf * 250,000 * tons/2000 lbs
Controlled PM PTE = uncontrolled PM PTE, tons/yr * (1-.90)

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Surfacer Sanding/Inspection Booth (PA-06) **250,000 units/yr** **73 units/hr**
**Emission Unit Description:** Surfacer Sanding/Inspection Booth

| PM Emission Calculations | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Uncontrolled PM Emissions | | | PM Emissions after control | |
| **Chemical** | **Area Sanded** (sq. ft./unit) | **Depth of Sanding** (microns) | **Depth of Sanding** (feet) | **Volume of Sanding** (cu. ft./unit) | **Density of Particulate** (lb/cu. ft.) | (lb/hr) | (lb/yr) | **Control System Efficiency** (%) | (lb PM/hr) | (lb/yr) |
| EDP Coating | 1.00 | 10.0 | 0.000033 | 0.000033 | 84.29 | 0.20 | 691.35 | 98.5% | 0.00 | 10.37 |
| Primer Coating | 9.00 | 12.5 | 0.000041 | 0.000369 | 99.90 | 2.69 | 9,218.11 | 98.5% | 0.04 | 138.27 |
| Totals | | | | 0.000402 | | 2.89 | 9,909.46 | | 0.04 | 148.64 |
| Totals (tons) | | | | | | | **4.95** | | | **0.074** |

Methodology:
Uncontrolled PM PTE =area sanded, sq.ft/unit * depth of sanding, feet * density, lb/cf * 250,000 * tons/2000 lbs
Controlled PM PTE = uncontrolled PM PTE, tons/yr * (1-.90)

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** On-Line Repair Sanding Booth (PA-08) **35,000 units/yr** **12 units/hr**
**Emission Unit Description:** On-Line Repair Sanding Booth

| PM Emission Calculations | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Uncontrolled PM Emissions | | | PM Emissions after control | |
| Chemical | Area Sanded (sq. ft./unit) | Depth of Sanding (microns) | Depth of Sanding (feet) | Volume of Sanding (cu. ft./unit) | Density of Particulate (lb/cu. ft.) | (lb/hr) | (lb/yr) | Control System Efficiency (%) | (lb PM/hr) | (lb/yr) |
| EDP Coating | 1.00 | 10.0 | 0.000033 | 0.000033 | 84.29 | 0.0332 | 96.79 | 98.5% | 0.0005 | 1.45 |
| Primer Coating | 4.00 | 35.0 | 0.000115 | 0.000459 | 99.90 | 0.5506 | 1,606.00 | 98.5% | 0.0083 | 24.09 |
| Basecoat | 10.00 | 8.0 | 0.000026 | 0.000262 | 106.15 | 0.3343 | 975.13 | 98.5% | 0.0050 | 14.63 |
| Clearcoat | 32.00 | 20.0 | 0.000066 | 0.002100 | 68.68 | 1.7305 | 5,047.33 | 98.5% | 0.0260 | 75.71 |
| Totals (lbs) | | | | 0.002854 | | 2.649 | 7,725.25 | | 0.040 | 115.88 |
| Totals (tons) | | | | | | | **3.86** | | | **0.06** |

Methodology:
Uncontrolled PM PTE =area sanded, sq.ft/unit * depth of sanding, feet * density, lb/cf * 250,000 * tons/2000 lbs
Controlled PM PTE = uncontrolled PM PTE, tons/yr * (1-.90)

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Topcoat On-line Repair Process (PA-07)
**Emission Unit Description:** Source includes small repair booth & IR ovens, On-line Repair Booth & Oven

| | units/yr | units/hr |
|---|---|---|
| Maximum Production | 250,000 | 88 |
| Maximum Repair | 35,000 | 12 |

## ANNUAL EMISSION CALCULATIONS

| Annual VOC & HAP Emission Calculations | | | As Applied | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | (gal/unit) | Material Usage (gal/yr) | VOC Content (lb VOC/gal) | Uncontrolled Emissions VOC (lb/yr) | Booth Capture (%) | Oven Capture (%) | Incinerator Efficiency (%) | Emissions after control VOC (lb/yr) | | Volume % Water | Material Usage Less Water (gal/yr) |
| Repair - Primer | 0.030 | 1,050 | 4.12 | 4,326 | 0.00% | 0.00% | 95.0% | 4,326 | | 0.0% | 1050 |
| Spot Primer | 0.007 | 245 | 5.91 | 1,448 | 0.00% | 0.00% | 95.0% | 1,448 | | 0.0% | 245 |
| Repair - basecoat | 0.060 | 2,100 | 4.69 | 9,849 | 0.00% | 0.00% | 95.0% | 9,849 | | 0.0% | 2100 |
| Repair - clearcoat | 0.060 | 2,100 | 4.26 | 8,946 | 0.00% | 0.00% | 95.0% | 8,946 | | 0.0% | 2100 |
| **Total (tons)** | | **5,495** | | **12.28** | | | | **12.28** | | | 5495 |
| | | | | | | | | | | Total | 1364.94 |

| Annual PM Emission Calculations | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | (gal/unit) | Material Usage (gal/yr) | Coating Density (lb/gal) | Solid Content (%wt) | Total Solids (lb/yr) | Transfer Efficiency (%) | Uncontrolled Emissions (lb PM/yr) | Scrubber Efficiency (%) | Emissions after Control (lb PM/yr) | Solids Content (%vol) | Solids Applied (gal/yr) |
| Repair - Primer | 0.030 | 1,050 | 10.47 | 60.57% | 6,659 | 40.00% | 3,995 | 99.00% | 40 | 46.30% | 194 |
| Spot Primer | 0.007 | 245 | 8.53 | 30.78% | 643 | 40.00% | 386 | 99.00% | 4 | 18.25% | 18 |
| Repair - basecoat | 0.060 | 2,100 | 8.74 | 65.70% | 12,059 | 40.00% | 7,235 | 99.00% | 72 | 46.42% | 390 |
| Repair - clearcoat | 0.060 | 2,100 | 8.35 | 65.70% | 11,520 | 40.00% | 6,912 | 98.00% | 138 | 58.16% | 489 |
| **Total (tons)** | | **5,495** | | | **15.44** | | **9.26** | | **0.13** | | **1,091** |

## HAP COMPONENT EMISSION CALCULATIONS

| | | HAP Component (lb/gal of coating) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | Material Usage (gal/hr) | Xylene 1330-20-7 | Toluene 108-88-3 | Ethyl benzene 100-41-4 | Formaldehyde 50-00-0 | Cumene 98-82-8 | Methanol 67-56-1 | Naphthalene 91-20-3 | Styrene 100-42-5 | Methyl Isobutyl Ketone 108-88-3 | Hexane 110-54-3 | Phenol 108-95-2 | 2-Butoxyethyl Acetate | Ethylene Glycol Monohexyl | 2-(2-Butoxy-ethoxy) Ethanol | Di-Sec-Octyl Phthalate 117-81-7 | Chloroform 67-66-3 |
| Repair - Primer | 0.72 | 0.22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Spot - Primer | 0.17 | 0.86 | 1.72 | 0.43 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Repair - basecoat | 1.44 | 1.35 | 0.31 | 0.31 | - | 0.10 | 0.21 | - | - | 0.39 | - | - | - | - | - | - | - |
| Repair - clearcoat | 1.44 | 1.11 | - | 0.42 | 0.42 | 0.08 | 0.17 | 0.09 | 0.08 | - | - | - | - | - | - | - | 0.11 |

| | | HAP Component Emissions (tons/yr) - before control/after control | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | Material Usage (gal/hr) | Xylene 1330-20-7 | Toluene 108-88-3 | Ethyl benzene 100-41-4 | Form-aldehyde 50-00-0 | Cumene 98-82-8 | Methanol 67-56-1 | Naph-thalene 91-20-3 | Styrene 100-42-5 | Methyl Isobutyl Ketone 108-88-3 | Hexane 110-54-3 | Phenol 108-95-2 | 2-Butoxyethyl Acetate | Ethylene Glycol Monohexyl | 2-(2-Butoxy-ethoxy) Ethanol | Di-Sec-Octyl Phthalate 117-81-7 | Chloroform 67-66-3 |
| Repair - Primer | 1,050.00 | 0.12 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Spot - Primer | 245.00 | 0.11 | 0.21 | 0.05 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Repair - basecoat | 2,100.00 | **1.42** | **0.33** | 0.33 | - | **0.11** | **0.22** | - | - | **0.41** | - | - | - | - | - | - | - |
| Repair - clearcoat | 2,100.00 | 1.17 | - | **0.44** | **0.42** | 0.08 | 0.18 | **0.09** | **0.08** | - | - | - | - | - | - | - | **0.12** |
| **Total** | **5,495.00** | **1.42** | **0.33** | **0.44** | **0.42** | **0.11** | **0.22** | **0.09** | **0.08** | **0.41** | **-** | **-** | **-** | **-** | **-** | **-** | **0.12** |

| | |
|---|---|
| TOTAL HAP | **3.63** |
| Worst Single HAP | **1.42** |

Methodology:
VOC or HAPs Uncontrolled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb
VOC or HAPs Controlled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb * (1-(% booth capture + % oven capture/carry over) * % incinerator DRE)
PM Uncontrolled PTE = usage, gal/yr * coating density, lb/gal * % solids * ton/2000 lb * (1-transfer efficiency)
PM Controlled PTE = Uncontrolled PTE, tons/yr * (1-scubber efficiency) * (1-filter efficiency)
lb/gacs after control = VOC emissions after control, lbs/yr * yr/gallons, solids applied

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Topcoat In-line Repair (PA-09)
**Emission Unit Description:** Source includes repair area for small interior topcoat imperfections, manual application equipment

| | | units/yr | units/hr |
|---|---|---|---|
| Production | Max | 250,000 | 88 |

## ANNUAL EMISSION CALCULATIONS

| Annual VOC & HAP Emission Calculations | | | As Applied | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Material Usage | VOC Content | Uncontrolled Emissions VOC | Booth Capture | Oven Capture | Incinerator Efficiency | Emissions after control VOC | |
| Chemical | (gal/unit) | (gal/yr) | (lb VOC/gal) | (lb/yr) | (%) | (%) | (%) | (lb/yr) | |
| Air Dry Coatings | 0.0012 | 300 | 6.37 | 1,911 | 0.00% | 0.00% | 95.0% | 1,911 | |
| Polish | 0.0006 | 150 | 1.67 | 251 | 0.00% | 0.00% | 95.0% | 251 | |
| **Total (tons)** | | **450** | | **1.08** | | | | **1.08** | |

| Annual PM Emission Calculations | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | (gal/unit) | Material Usage (gal/yr) | Coating Density (lb/gal) | Solid Content (%wt) | Total Solids (lb/yr) | Transfer Efficiency (%) | Uncontrolled Emissions (lb PM/yr) | Removal Efficiency (%) | Emissions after Control (lb PM/yr) | Solids Content (%vol) | Solids Applied (gal/yr) |
| Air Dry Coatings | 0.0012 | 300 | 8.43 | 25.46% | 644 | 25.00% | 483 | 0.00% | 482.9 | 15.04% | 11.28 |
| Polish | 0.0006 | 150 | 8.17 | 30.00% | 368 | NA | NA | NA | NA | NA | NA |
| **Total (tons)** | | **450** | | | **0.51** | | **0.24** | | **0.24** | | **11.28** |

**Limited to <15 lbs/day**

## HAP COMPONENT EMISSION CALCULATIONS

| | | HAP Component (lb/gal of coating) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | Material Usage (gal/hr) | Xylene 1330-20-7 | Toluene 108-88-3 | Ethyl benzene 100-41-4 | Form-aldehyde 50-00-0 | Cumene 98-82-8 | Methanol 67-56-1 | Naph-thalene 91-20-3 | Styrene 100-42-5 | Methyl Isobutyl Ketone | Hexane 110-54-3 | Phenol 108-95-2 | 2-Butoxyethyl Acetate 112-07-2 | Ethylene Glycol Monohexyl | 2-(2-Butoxy-ethoxy) Ethanol | Di-Sec-Octyl Phthalate 117-81-7 | Chloroform 67-66-3 |
| Air Dry Coatings | 0.21 | 1.81 | 3.93 | 0.51 | 0.42 | 0.08 | 0.42 | 0.09 | 0.08 | 1.58 | - | - | 0.37 | - | - | - | 0.11 |
| Polish | 0.11 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

| | | HAP Component Emissions (tons/yr) - before control/after control | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | Material Usage (gal/yr) | Xylene 1330-20-7 | Toluene 108-88-3 | Ethyl benzene 100-41-4 | Form-aldehyde 50-00-0 | Cumene 98-82-8 | Methanol 67-56-1 | Naph-thalene 91-20-3 | Styrene 100-42-5 | Methyl Isobutyl Ketone | Hexane 110-54-3 | Phenol 108-95-2 | 2-Butoxyethyl Acetate 112-07-2 | Ethylene Glycol Monohexyl | 2-(2-Butoxy-ethoxy) Ethanol | Di-Sec-Octyl Phthalate 117-81-7 | Chloroform 67-66-3 |
| Air Dry Coatings | 300.00 | 0.27 | 0.59 | 0.08 | 0.06 | 0.01 | 0.06 | 0.01 | 0.01 | 0.24 | - | - | 0.00 | - | - | - | 0.02 |
| Polish | 150.00 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total** | **450.00** | **0.27** | **0.59** | **0.08** | **0.06** | **0.01** | **0.06** | **0.01** | **0.01** | **0.24** | **-** | **-** | **0.00** | **-** | **-** | **-** | **0.02** |

| | |
|---|---|
| TOTAL HAP | **1.35** |
| Worst Single HAP | **0.59** |

Methodology:
VOC or HAPs Uncontrolled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb
VOC or HAPs Controlled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb * (1-(% booth capture + % oven capture/carry over) * % incinerator DRE)
PM Uncontrolled PTE = usage, gal/yr * coating density, lb/gal * % solids * ton/2000 lb * (1-transfer efficiency)
PM Controlled PTE = Uncontrolled PTE, tons/yr * (1-scubber efficiency) * (1-filter efficiency)
lb/gacs after control = VOC emissions after control, lbs/yr * yr/gallons,solids applied

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Topcoat Inspection Sanding (PA-10) **250,000 units/yr** **80 units/hr**
**Emission Unit Description:** Topcoat Inspection Sanding Area - manual sanding

| PM Emission Calculations | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Chemical** | **Area Sanded** (sq. ft./unit) | **Depth of Sanding** (microns) | **Depth of Sanding** (feet) | **Volume of Sanding** (cu. ft./unit) | **Density of Particulate** (lb/cu. ft.) | **Uncontrolled PM** (lb/yr) | **Filter Efficiency** (%) | **Net PM Emissions** (lb PM/hr) | **Net PM Emissions** (lb PM/yr) |
| Clearcoat | 0.30 | 20.0 | 0.000066 | 0.000020 | 68.68 | 337.99 | 0.0% | 0.108 | 338 |
| Totals (lbs) | | | | 0.000020 | | 337.99 | | **0.11** | 338 |
| Totals (tons) | | | | | | 0.17 | | | **0.17** |

Methodology:
Uncontrolled PM PTE =area sanded, sq.ft/unit * depth of sanding, feet * density, lb/cf * 250,000 * tons/2000 lbs

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Blackout/Wax Coating Line (PA-11) — 250,000 units/yr — 80 units/hr
**Emission Unit Description:** Blackout/Wax Coating Booth

## ANNUAL EMISSION CALCULATIONS

| Annual VOC & HAP Emission Calculations | | | As Applied | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Material | VOC | HAP | Uncontrolled Emissions | | Booth | Oven | Incinerator | Emissions after control | |
| | | Usage | Content | Content | VOC | HAP | Capture | Capture | Efficiency | VOC | HAP |
| Chemical | (gal/unit) | (gal/yr) | (lb VOC/gal) | (lb HAP/gal) | (lb/yr) | (lb/yr) | (%) | (%) | (%) | (lb/yr) | (lb/yr) |
| Blackout | 0.036 | 9,000 | 0.63 | 0.00 | 5,670 | 0 | 0.00% | 0.00% | 95.00% | 5,670 | 0 |
| Wax | 0.021 | 5,371 | 2.90 | 0.00 | 15,576 | 0 | 0.00% | 0.00% | 95.00% | 15,576 | 0 |
| Air-Dry PVC | 0.019 | 4,750 | 0.1 | 0.00 | 475 | 0 | 0.00% | 0.00% | 95.00% | 475 | 0 |
| **Total (tons)** | | **19,121** | | | **10.86** | **0.00** | | | | **10.86** | **0.00** |

| | | |
|---|---|---|
| **Blackout** | **0.63** | **lb/gal** |
| **wax** | **2.90** | **lb/gal** |
| **Ai-Dry PVC** | **0.10** | **lb/gal** |
| **vol wt. ave.** | **1.14** | **lb/gal** |

| Annual PM Emission Calculations | | | | | | | | Filter | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | (gal/unit) | Material Usage (gal/yr) | Coating Density (lb/gal) | Solid Content (%wt) | Total Solids (lb/yr) | Transfer Efficiency (%) | Uncontrolled Emissions (lb PM/yr) | Removal Efficiency (%) | Emissions after Control (lb PM/yr) | Solids Content (%vol) | Solids Applied (gal/yr) |
| Blackout | 0.036 | 9,000 | 10.50 | 60.60% | 57,267 | 40.00% | 34,360 | 98.00% | 687.20 | 50.38% | 1,814 |
| Wax | 0.021 | 5,371 | 7.30 | 62.00% | 24,309 | 99.00% | 243 | 98.00% | 4.86 | 42.80% | 2,276 |
| Air-Dry PVC | 0.019 | 4,750 | 11 | 61.50% | 32,134 | 99.00% | 321 | 98.00% | 6.43 | 50.90% | 2,394 |
| **Total (tons)** | | **19,121** | | | **56.85** | | **17.46** | | **0.35** | | **6,483** |

Methodology:
VOC or HAPs Uncontrolled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb
VOC or HAPs Controlled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb * (1-(% booth capture + % oven capture/carry over) * % incinerator DRE)
PM Uncontrolled PTE = usage, gal/yr * coating density, lb/gal * % solids * ton/2000 lb * (1-transfer efficiency)
PM Controlled PTE = Uncontrolled PTE, tons/yr * (1-scubber efficiency) * (1-filter efficiency)
Vol. weighted average,lb/gal after control = VOC emissions after control, lbs/yr * yr/gallons coating usage

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Final Repair (PA-12)
**Emission Unit Description:** Source includes repair coating booths and general areas, manual application equipment, IR curing equipment, coating delivery systems, & ovens

| | | Units/yr | units/hr |
|---|---|---|---|
| Production | Max | 250,000 | 88 |
| | Repair | 50,000 | 30 |

## ANNUAL EMISSION CALCULATIONS

| Annual VOC & HAP Emission Calculations | | | As Applied | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Material | VOC | HAP | Uncontrolled Emissions | | Booth | Oven | Incinerator | Emissions after control | | Volume % | Pound /Gallon |
| Chemical | (gal/unit) | Usage (gal/yr) | Content (lb VOC/gal) | Content (lb HAP/gal) | VOC (lb/yr) | HAP (lb/yr) | Capture (%) | Capture (%) | Efficiency (%) | VOC (lb/yr) | HAP (lb/yr) | Water | Less Water |
| Repair - Primer | 0.0030 | 150 | 4.12 | 0.22 | 618 | 33 | 0.00% | 0.00% | 95.0% | 618 | 33 | 0.00% | 4.12 |
| Repair - basecoat | 0.0070 | 350 | 4.69 | 1.71 | 1,642 | 599 | 0.00% | 0.00% | 95.0% | 1,642 | 599 | 0.00% | 4.69 |
| Clearcoat | 0.0120 | 600 | 4.26 | 1.53 | 2,556 | 918 | 0.00% | 0.00% | 95.0% | 2,556 | 918 | 0.00% | 4.26 |
| **Total (tons)** | | **1,100** | | | **2.41** | **0.77** | | | | **2.41** | **0.77** | | |

**All coatings are in compliance with the limit of 4.8 lb/gal less water in 326 IAC 8-2-2.**

| Annual PM Emission Calculations | | | | | | | | Filter | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | (gal/unit) | Material Usage (gal/yr) | Coating Density (lb/gal) | Solid Content (%wt) | Total Solids (lb/yr) | Transfer Efficiency (%) | Uncontrolled Emissions (lb PM/yr) | Removal Efficiency (%) | Emissions after Control (lb PM/yr) | Solids Content (%vol) | Solids Applied (gal/yr) |
| Repair - Primer | 0.0030 | 150 | 11.23 | 67.57% | 1,138 | 25.00% | 854 | 98.00% | 17.1 | 52.65% | 19.74 |
| Repair - basecoat | 0.0070 | 350 | 9.94 | 59.28% | 2,062 | 25.00% | 1,547 | 98.00% | 30.9 | 42.16% | 36.89 |
| Clearcoat | 0.0120 | 600 | 9.75 | 63.17% | 3,695 | 25.00% | 2,772 | 98.00% | 55.4 | 49.42% | 74.13 |
| **Total (tons)** | | **1,100** | | | **3.45** | | **2.59** | | **0.05** | | **130.76** |

## HAP COMPONENT EMISSION CALCULATIONS

| | | HAP Component (lb/gal of coating) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | Material Usage (gal/hr) | Xylene 1330-20-7 | Toluene 108-88-3 | Ethyl benzene 100-41-4 | Form-aldehyde 50-00-0 | Cumene 98-82-8 | Methanol 67-56-1 | Naph-thalene 91-20-3 | Styrene 100-42-5 | Methyl Isobutyl Ketone | Hexane 110-54-3 | Phenol 108-95-2 | 2-Butoxyethyl Acetate 112-07-2 | Ethylene Glycol Monohexy | 2-(2-Butoxy-ethoxy) Ethanol | Di-Sec-Octyl Phthalate 117-81-7 | Chloroform 67-66-3 |
| Repair - Primer | 0.18 | 0.22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Repair - basecoat | 0.42 | 1.44 | 0.31 | 0.31 | - | 0.10 | 0.21 | - | - | 0.39 | - | - | - | - | - | - | - |
| Clearcoat | 0.72 | 1.44 | - | 0.42 | 0.42 | 0.08 | 0.17 | 0.09 | 0.08 | - | - | - | - | - | - | - | 0.11 |
| | | | | | | | | | | | - | | - | | | | |

| | | HAP Component Emissions (tons/year) - before control/after control | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | Material Usage (gal/yr) | Xylene 1330-20-7 | Toluene 108-88-3 | Ethyl benzene 100-41-4 | Form-aldehyde 50-00-0 | Cumene 98-82-8 | Methanol 67-56-1 | Naph-thalene 91-20-3 | Styrene 100-42-5 | Methyl Isobutyl Ketone | Hexane 110-54-3 | Phenol 108-95-2 | 2-Butoxyethyl Acetate 112-07-2 | Ethylene Glycol Monohexy | 2-(2-Butoxy-ethoxy) Ethanol | Di-Sec-Octyl Phthalate 117-81-7 | Chloroform 67-66-3 |
| Repair - Primer | 150.00 | 0.02 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Repair - basecoat | 350.00 | 0.25 | 0.05 | 0.05 | - | 0.02 | 0.04 | - | - | **0.07** | - | - | - | - | - | - | - |
| Clearcoat | 600.00 | **0.43** | - | **0.13** | **0.13** | **0.02** | **0.05** | **0.03** | **0.02** | - | - | - | - | - | - | - | **0.03** |
| **Total** | **1,100.00** | **0.33** | **0.05** | **0.13** | **0.13** | **0.02** | **0.05** | **0.03** | **0.02** | **0.07** | **-** | **-** | **-** | **-** | **-** | **-** | **0.03** |

Note: 0.86 tons/yr total HAPs is worse than 0.77 ton/yr determined in the first table of this page.

| | |
|---|---|
| Worst TOTAL HAP | **0.86** |
| Worst Single HAP | **0.33** |

Methodology:
VOC or HAPs Uncontrolled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb
VOC or HAPs Controlled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb * (1-(% booth capture + % oven capture/carry over) * % incinerator DRE)
PM Uncontrolled PTE = usage, gal/yr * coating density, lb/gal * % solids * ton/2000 lb * (1-transfer efficiency)
PM Controlled PTE = Uncontrolled PTE, tons/yr * (1-scubber efficiency) * (1-filter efficiency)
Pound/gallon less water = coating VOC content, lb/gal / 1-volume % water

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Final Repair - Air Dry (PA-13)
**Emission Unit Description:** Source includes repair coating areas using air dry materials, manual application equipment

| | | Units/yr | units/hr |
|---|---|---|---|
| Production | Max | 250,000 | 88 |
| | Repair | 50,000 | 30 |

## ANNUAL EMISSION CALCULATIONS

| Annual VOC Emission Calculations | | | As Applied | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Material Usage | VOC Content | Uncontrolled Emissions VOC | Booth Capture | Oven Capture | Incinerator Efficiency | Emissions after control VOC |
| Chemical | (gal/unit) | (gal/yr) | (lb VOC/gal) | (lb/yr) | (%) | (%) | (%) | (lb/yr) |
| Air Dry Coatings | 0.0026 | 130 | 6.37 | 828 | 0.00% | 0.00% | 95.0% | 828 |
| Polish | 0.0024 | 120 | 1.67 | 200 | 0.00% | 0.00% | 95.0% | 200 |
| **Total (tons)** | | **250** | | **0.51** | | | | **0.51** |

| Annual PM Emission Calculations | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Material Usage | Coating Density | Solid Content | Total Solids | Transfer Efficiency | Uncontrolled Emissions | Removal Efficiency | Emissions after Control | Solids Content | Solids Applied |
| Chemical | (gal/unit) | (gal/yr) | (lb/gal) | (%wt) | (lb/yr) | (%) | (lb PM/yr) | (%) | (lb PM/yr) | (%vol) | (gal/yr) |
| Air Dry Coatings | 0.0026 | 130 | 7.91 | 27.33% | 281 | 25.00% | 211 | 0.00% | 210.8 | 15.04% | 4.89 |
| Polish | 0.0024 | 120 | 8.11 | 19.68% | 192 | NA | NA | NA | NA | NA | NA |
| **Total (tons)** | | **250** | | | **0.24** | | **0.11** | | **0.11** | | **4.89** |

## HAP COMPONENT EMISSION CALCULATIONS

| | | HAP Component (lb/gal of coating) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Material Usage | Xylene | Toluene | Ethyl benzene | Form-aldehyde | Cumene | Methanol | Naph-thalene | Styrene | Methyl Isobutyl Ketone | Hexane | Phenol | 2-Butoxyethyl Acetate | Ethylene Glycol Monohexyl Ether | 2-(2-Butoxy-ethoxy) Ethanol | Di-Sec-Octyl Phthalate | Chloroform |
| Chemical | (gal/hr) | 1330-20-7 | 108-88-3 | 100-41-4 | 50-00-0 | 98-82-8 | 67-56-1 | 91-20-3 | 100-42-5 | | 110-54-3 | 108-95-2 | 112-07-2 | 112-25-4 | 112-34-5 | 117-81-7 | 67-66-3 |
| Air Dry Coatings | 0.12 | 1.81 | 3.93 | 0.51 | 0.42 | 0.08 | 0.42 | 0.09 | 0.08 | 1.58 | - | - | 0.37 | - | - | - | 0.11 |
| Polish | 0.11 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |

| | | HAP Component Emissions (tons/yr) - before control/after control | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Material Usage | Xylene | Toluene | Ethyl benzene | Form-aldehyde | Cumene | Methanol | Naph-thalene | Styrene | Methyl Isobutyl Ketone | Hexane | Phenol | 2-Butoxyethyl Acetate | Ethylene Glycol Monohexyl Ether | 2-(2-Butoxy-ethoxy) Ethanol | Di-Sec-Octyl Phthalate | Chloroform |
| Chemical | (gal/yr) | 1330-20-7 | 108-88-3 | 100-41-4 | 50-00-0 | 98-82-8 | 67-56-1 | 91-20-3 | 100-42-5 | | 110-54-3 | 108-95-2 | 112-07-2 | 112-25-4 | 112-34-5 | 117-81-7 | 67-66-3 |
| Air Dry Coatings | 130.00 | **0.12** | **0.26** | **0.03** | **0.03** | **0.01** | **0.03** | **0.01** | **0.01** | **0.10** | **-** | - | **0.02** | - | - | - | **0.01** |
| Polish | 120.00 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| **Total** | **250.00** | **0.12** | **0.26** | **0.03** | **0.03** | **0.01** | **0.03** | **0.01** | **0.01** | **0.10** | **-** | **-** | **0.02** | **-** | **-** | **-** | **0.01** |

| | |
|---|---|
| Total HAPs | 0.61 |
| Worst Single HAP | 0.26 |

**Limit = <15 lb/day to avoid 326 IAC 8-2-2**

Methodology:
VOC or HAPs Uncontrolled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb
VOC or HAPs Controlled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb * (1-(% booth capture + % oven capture/carry over) * % incinerator DRE)
PM Uncontrolled PTE = usage, gal/yr * coating density, lb/gal * % solids * ton/2000 lb * (1-transfer efficiency)
PM Controlled PTE = Uncontrolled PTE, tons/yr * (1-scubber efficiency) * (1-filter efficiency)
lb/gacs after control = VOC emissions after control, lbs/yr * yr/gallons,solids applied

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Miscellaneous Cleaning & Purge Solvent (PA-14) — 250,000 units/yr
**Emission Unit Description:** Purge solvent usage and cleaning activities throughout the paint department except

**VOC & HAP Emission Calculations**

| Chemical | Usage (gal/yr) | VOC Content (lb VOC/gal) | VOC Emissions (lb VOC/yr) | HAP Content (lb HAP/gal) | HAP Emissions (lb HAP/yr) |
|---|---|---|---|---|---|
| Purge Solvent (6-75-584) | 35,000 | 7.29 | 255,150 | 4.37 | 152,950 |
| Cleaning Solvent - A (B/A) | 5,200 | 7.35 | 38,220 | - | - |
| Cleaning Solvent - B (SC-100 | 3,100 | 7.30 | 22,630 | 0.82 | 2,542 |
| Cleaning Solvent - C (3608S) | 2,750 | 4.62 | 12,705 | 1.02 | 2,805 |
| Cleaning Solvent - D (SC-150 | 2,500 | 7.49 | 18,725 | 1.42 | 3,550 |
| Cleaning Solvent - E (IPA) | 2,500 | 6.55 | 16,375 | - | - |
| Purge Recovery (90% of purge) | | | (229,635) | | (137,655) |
| Totals | 51,050 | | 134,170 | | 24,192 |
| Totals (tons) | | | **67.09** | | 12.10 |

@4,000 hrs/yr = **33.54** lb VOC | **6.05** lb HAP

## HAP COMPONENT EMISSION CALCULATIONS

| | | HAP Component (lb/gal of coating) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | Material Usage (gal/r) | Xylene 1330-20-7 | Toluene 108-88-3 | Ethyl benzene 100-41-4 | Formaldehyde 50-00-0 | Cumene 98-82-8 | Methanol 67-56-1 | Naph-thalene 91-20-3 | Styrene 100-42-5 | Methyl Isobutyl Ketone | Hexane 110-54-3 | Phenol 108-95-2 | 2-Butoxyethyl | Ethylene Glycol Monohexy | 2-(2-Butoxy-ethoxy) | Di-Sec-Octyl Phthalate 117-81-7 | Chloroform 67-66-3 |
| Purge Solvent (6-75-584) | 8.75 | 3.65 | - | 0.73 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Cleaning Solvent - A (B/A) | 1.30 | 1.42 | 1.42 | 1.42 | - | 0.11 | 1.42 | 0.60 | 0.08 | 1.42 | - | - | - | - | - | - | - |
| Cleaning Solvent - B (SC-100 | 0.78 | 1.42 | 1.42 | 1.42 | - | 0.11 | 1.42 | 0.60 | 0.08 | 1.42 | - | - | - | - | - | - | - |

| | | HAP Component (lb/gal) - before control/after control | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chemical | Material Usage (gal/yr) | Xylene 1330-20-7 | Toluene 108-88-3 | Ethyl benzene 100-41-4 | Form-aldehyde 50-00-0 | Cumene 98-82-8 | Methanol 67-56-1 | Naph-thalene 91-20-3 | Styrene 100-42-5 | Methyl Isobutyl Ketone | Hexane 110-54-3 | Phenol 108-95-2 | 2-Butoxyethyl | Ethylene Glycol Monohexy | 2-(2-Butoxy-ethoxy) | Di-Sec-Octyl Phthalate 117-81-7 | Chloroform 67-66-3 |
| Purge Solvent (6-75-584) | 35,000.00 | 63.88 | - | 12.78 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Cleaning Solvent - A (B/A) | 5,200.00 | 3.69 | 3.69 | 3.69 | - | 0.29 | 3.69 | 1.56 | 0.21 | 3.69 | - | - | - | - | - | - | - |
| Cleaning Solvent - B (SC-100 | 3,100.00 | 2.20 | 2.20 | 2.20 | - | 0.17 | 2.20 | 0.93 | 0.12 | 2.20 | - | - | | - | - | - | - |
| **Total** | **43,300.00** | **69.77** | **5.89** | **18.67** | **-** | **0.46** | **5.89** | **2.49** | **0.33** | **5.89** | **-** | **-** | **-** | **-** | **-** | **-** | **-** |

Note: 109.39 tons/yr total HAPs is worse than 12.1 ton/yr determined in the first table of this page.

| | |
|---|---|
| Worst TOTAL HAP | 109.39 |
| Worst Single HAP | 69.77 |

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Paint Test Lab (PA-16)
**Emission Unit Description:** Test lab for material quality

| | | panels/yr | panels/hr |
|---|---|---|---|
| Production | Max | 1,000 | 15 |

## ANNUAL EMISSION CALCULATIONS

| Annual VOC & HAP Emission Calculations | | | As Applied | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Material | VOC | Uncontrolled Emissions | Booth | Oven | Incinerator | Emissions after control | |
| | | Usage | Content | VOC | Capture | Capture | Efficiency | VOC | HAP |
| Chemical | gram/panel | (gal/yr) | (lb VOC/gal) | (lb/yr) | (%) | (%) | (%) | (lb/yr) | (lb/yr) |
| Repair - Primer | 31.0 | 6 | 4.12 | 25 | 0.00% | 0.00% | 95.0% | 25 | 0 |
| Repair - basecoat | 46.0 | 10 | 4.69 | 48 | 0.00% | 0.00% | 95.0% | 48 | 0 |
| Clearcoat | 22.0 | 5 | 4.26 | 21 | 0.00% | 0.00% | 95.0% | 21 | 0 |
| **Total (tons)** | | **21** | | **0.05** - | | | | **0.05** | **-** |

| Annual PM Emission Calculations | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Material | Coating | Solid | Total | Transfer | Uncontrolled | Removal | Emissions | Solids | Solids |
| | | Usage | Density | Content | Solids | Efficiency | Emissions | Efficiency | after Control | Content | Applied |
| Chemical | gram/panel | (gal/yr) | (lb/gal) | (%wt) | (lb/yr) | (%) | (lb PM/yr) | (%) | (lb PM/yr) | (%vol) | (gal/yr) |
| Repair - Primer | 31.0 | 6.08 | 11.23 | 67.57% | 46 | 25.00% | 35 | 95.00% | 1.7 | 52.65% | 0.80 |
| Repair - basecoat | 46.0 | 10.19 | 9.94 | 59.28% | 60 | 25.00% | 45 | 95.00% | 2.3 | 42.16% | 1.07 |
| Clearcoat | 22.0 | 4.97 | 9.75 | 63.17% | 31 | 25.00% | 23 | 95.00% | 1.1 | 49.42% | 0.61 |
| **Total (tons)** | | **21.24** | | | **0.07** | | **0.05** | | **0.00** | | **2.49** |

## HAP COMPONENT EMISSION CALCULATIONS

| | | HAP Component (lb/gal) of Coating | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Material | Xylene | Toluene | Ethyl | Form- | Cumene | Methanol | Naph-thalene | Styrene | Methyl | Hexane | Phenol | 2-Butoxyethyl | Ethylene | 2-(2-Butoxy- | Di-Sec-Octyl | Chloroform |
| | Usage | | | benzene | aldehyde | | | | | Isobutyl | | | Acetate | Glycol | ethoxy) | Phthalate | |
| Chemical | (gal/hr) | 1330-20-7 | 108-88-3 | 100-41-4 | 50-00-0 | 98-82-8 | 67-56-1 | 91-20-3 | 100-42-5 | Ketone | 110-54-3 | 108-95-2 | 112-07-2 | Monohexyl | Ethanol | 117-81-7 | 67-66-3 |
| Repair -Primer | 0.09 | 0.22 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Repair - basecoat | 0.15 | 1.35 | 0.31 | 0.31 | - | 0.21 | 0.21 | - | - | 0.39 | - | - | - | - | - | - | - |
| Clearcoat | 0.07 | 1.11 | - | 0.42 | 0.42 | 0.17 | 0.17 | 0.09 | 0.08 | - | - | - | - | - | - | - | 0.11 |

| | | HAP Component Emissions (tons/yr) - before control/after control | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Material | Xylene | Toluene | Ethyl | Form- | Cumene | Methanol | Naph-thalene | Styrene | Methyl | Hexane | Phenol | 2-Butoxyethyl | Ethylene | 2-(2-Butoxy- | Di-Sec-Octyl | Chloroform |
| | Usage | | | benzene | aldehyde | | | | | Isobutyl | | | Acetate | Glycol | ethoxy) | Phthalate | |
| Chemical | (gal/yr) | 1330-20-7 | 108-88-3 | 100-41-4 | 50-00-0 | 98-82-8 | 67-56-1 | 91-20-3 | 100-42-5 | Ketone | 110-54-3 | 108-95-2 | 112-07-2 | Monohexyl | Ethanol | 117-81-7 | 67-66-3 |
| Repair -Primer | 6.00 | 0.00 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Repair - basecoat | 10.00 | **0.01** | **0.00** | **0.00** | - | **0.00** | **0.00** | - | - | **-** | - | - | - | - | - | - | - |
| Clearcoat | 5.00 | 0.00 | - | 0.00 | **0.00** | 0.00 | 0.00 | **-** | **0.00** | - | - | - | - | - | - | - | **0.00** |
| **Total** | **21.00** | **0.01** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | | | | **-** | **-** | **-** | | **0.00** |

| | |
|---|---|
| TOTAL HAP | **0.01** |
| Worst Single HAP | **0.01** |

Methodology:
VOC or HAPs Uncontrolled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb
VOC or HAPs Controlled PTE = usage, gal/yr * VOC or HAP lb/gal * ton/2000 lb * (1-(% booth capture + % oven capture/carry over) * % incinerator DRE)
PM Uncontrolled PTE = usage, gal/yr * coating density, lb/gal * % solids * ton/2000 lb * (1-transfer efficiency)
PM Controlled PTE = Uncontrolled PTE, tons/yr * (1-scubber efficiency) * (1-filter efficiency)
lb/gacs after control = VOC emissions after control, lbs/yr * yr/gallons,solids applied

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

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Paint Effluent System (PA-17) **250,000 units/yr**
**Emission Unit Description:** Main Body Paint Sludge Pit Operations

| VOC Emission Calculations | | | | | |
|---|---|---|---|---|---|
| Chemical | Usage (gal/yr) | VOC Content (lb VOC/gal) | VOC Emissions (lb VOC/yr) | Density (lb/gal) | Material Usage (lb/yr) |
| Paint Kill 9512 | 57,000 | 0.01 | 570 | 8.59 | 489,630 |
| PolyEZ 55452 | 4,600 | 1.19 | 5,474 | 8.42 | 38,732 |
| PolyEZ 55451 | 1,800 | 1.09 | 1,962 | 8.42 | 15,156 |
| Nalco 7330 - biocide | 180 | 0.07 | 13 | 8.56 | 1,541 |
| Totals | 63,580 | | 8,019 | | 545,059 |
| Totals (tons/year) | | | **4.01** | | 272.53 |

| HAP Emission Calculations | | | |
|---|---|---|---|
| Chemical | Usage (gal/yr) | HAP Content (lb HAP/gal) | Maximum HAP Emissions (lb HAP/yr) |
| Paint Kill 9512 | 57,000 | - | - |
| PolyEZ 55452 | 4,600 | 0.000 | - |
| PolyEZ 55451 | 1,800 | 0.000 | - |
| Nalco 7330 - biocide | 180 | 0.000 | - |
| Totals | 63,580 | | 0 |
| Totals (tons/year) | | | 0.00 |

**Company Name:** **Honda Manufacturing of Indiana, LLC**
**Address City IN Zip:** **2755 N. Michigan Avenue, Greensburg, IN 47240**
**Part 70 Operating Permit Renewal No.:** **031-30127**
**Plt ID:** **031-00026**
**Reviewer:** **Aida DeGuzman**
**Application Receipt Date :** **1/18/2011**

**Wheelabrator/Shotblaster (PA-15):**

Customer: HONDA

BCP Job #: B0500769R1
Date: 16/11/2005

1) **FOR WHEEL BLAST EQUIPMENT :**

| | | | | | |
|---|---|---|---|---|---|
| | | | D/C Type: | FILTER COLLECTOR | |
| Air flow: | 2,800 | CFM @ 70 F | D/C Size: | JPSM-2D 6 | |
| Hour/day: | 24 | | Filter media: | CARTR 220 | |
| Days/week: | 7 | | A/C Ratio | 2.1212:1 | |
| Weeks/yr: | 50 | | Work piece area: | 35 | sq.ft. |

Wheel Data: 15" dia x 2.5" wide, single sided

| Wheel Dia. (inches) | RPM | Velocity fps | | Throwing capacity (lbs/min @ HP) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 7.5 | 10 | 15 | 20 | 25 | 30 |
| 10.5 | 3600 | 210 | | 275 | 385 | 565 | 715 | 915 | |
| 12.5 | 3600 | 240 | | 210 | 295 | 435 | 550 | 700 | 869 |
| 13.5 | 3600 | 265 | | 180 | 240 | 360 | 450 | 580 | 710 |
| 15 | 3600 | 300 | | | | 280 | 350 | 450 | 550 |
| 15 | 3000 | 250 | | | | 405 | 505 | 650 | 790 |
| 17.5 | 3600 | 350 | | | | 205 | 255 | 330 | 405 |
| 17.5 | 3000 | 290 | | | | 300 | 375 | 480 | 590 |
| 19.5 | 3000 | 320 | | | | 245 | 305 | 395 | 485 |
| 24 | 1800 | 240 | | | | 435 | 550 | 700 | 860 |
| 26 | 1800 | 265 | | | | 380 | 460 | 590 | 730 |

**Company Name:** **Honda Manufacturing of Indiana, LLC**
**Address City IN Zip:** **2755 N. Michigan Avenue, Greensburg, IN 47240**
**Part 70 Operating Permit Renewal No.:** **031-30127**
**Plt ID:** **031-00026**
**Reviewer:** **Aida DeGuzman**
**Application Receipt Date :** **1/18/2011**

| Wheel Dia. (inches) | RPM | Velocity fps | | Throwing capacity (lbs/min @ HP) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 40 | 50 | 60 | 75 | 100 | |
| 10.5 | 3600 | 210 | | | | | | | |
| 12.5 | 3600 | 240 | | 1140 | | | | | |
| 13.5 | 3600 | 265 | | 930 | 1120 | 1350 | | | |
| 15 | 3600 | 300 | | 725 | 870 | 1050 | 1350 | 1800 | |
| 15 | 3000 | 250 | | 1045 | 1250 | 1510 | 1940 | 2590 | |
| 17.5 | 3600 | 350 | | 532 | 640 | 770 | 990 | 1320 | |
| 17.5 | 3000 | 290 | | 775 | 930 | 1120 | 1445 | 1925 | |
| 19.5 | 3000 | 320 | | 635 | 765 | 920 | 1185 | 1580 | |
| 24 | 1800 | 240 | | 1130 | 1360 | 1640 | 2100 | 2792 | |
| 26 | 1800 | 265 | | 950 | 1150 | 1385 | 1780 | 2375 | |

2) **PRODUCTION :**

Wheel Diameter: 13 — Motor Rpm: 3600
No. of Wheels: 1 — Horsepower per wheel: 20
Abrasive Thrown/ Wheel: 360 lbs/min — Total Abrasive Thrown: 360 lbs/min
Empirical data: Cleaning rate varies from .5 to 1.5 sq.ft./min/wheel horsepower depending on condition of work and cleanliness desired. Use 1.2 sq.ft./min/whl hp

Cleaning Rate = $\frac{\text{sq.ft.}}{\text{part}} \times \frac{1}{\frac{\text{sq.ft.}}{\text{min/whl hp}}} \times \frac{1}{\frac{\text{HP}}{\text{wheel}}} \times \frac{1}{\frac{\text{no.of}}{\text{wheels}}} = \frac{\text{minutes}}{\text{part}}$

$= \frac{35}{1} \times \frac{1}{1.2} \times \frac{1}{20} \times \frac{1}{1} = 1.5$

Production Rate

| | | |
|---|---|---|
| Load conveyor | 0.0 | |
| Move part into machine | 5.0 | |
| Blast time | 20.0 | |
| Move part out of machine | 5.0 | |
| Unload conveyor | 0.0 | |
| Total Cycle Time | 30.0 | minutes |

Percentage of blast time to total cycle time: 66.7 %

Number of parts per hour: 2.0

Number of sq.ft. per hour cleaned: 70.0 sq.ft/hr

Yearly production= $\frac{\text{unit}}{\text{hour}} \times \frac{\text{hour}}{\text{day}} \times \frac{\text{days}}{\text{week}} \times \frac{\text{weeks}}{\text{year}} = \frac{\text{units}}{\text{year}}$

$\frac{\text{units}}{\text{year}} = 2.0 \times 24 \times 7 \times 50 = 16800$

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

3) **DUST FROM WORK PIECE :**

| | | | | |
|---|---|---|---|---|
| Surface contaminants: | PAINT | | | |
| Area processed per hour | | | 70.0 | sq.ft/hr |
| Surface material removed: | | = | 0.085 | lb/sq.ft. |
| Total dust generated: | | = | 6.0 | lb/hr |
| Percent dust to collector: | 50 % | = | 3.0 | lb/hr |

4) **DUST FROM ABRASIVE BREAKDOWN :**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Abrasive type: | ZINC | | 230 | lb/cu.ft. | Breakdown rate: | | 0.5 | % | |
| Abrasive thrown = | lb/min thrown | | x | Percentage of blast time to total cycle time | | | | | |
| | 360 | x | 66.7 | /100 | 240 | lb/min | = | 14,400 | lb/hr |
| Total abrasive breakdown: | | | 1.2 | lb/min | | | 72.0 | lb/hr | |
| Percent dust to collector: | | | 50 | % | = | | 36.0 | lb/hr | |

5) **DUST LOADING AND EMISSION :**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Inlet dust loading to collector = | | Surface contaminants + | | | Abrasive breakdown | | | | |
| | = | 3.0 | lb/hr | + | 36.0 | lb/hr | = | 39.0 | lb/hr |
| Inlet grain loading to collector = | | lb | x | hours | x | grains | x | minutes | |
| (1lb = 7000g | = | hour | | minutes | | lb | | cu.ft. | |
| | = | 38.975 | x | 1 | x | 7000 | x | 1 | |
| | | | | 60 | | 1 | | 2,800 | |
| | = | 1.62395833 | gr/scf | | | | | | |

Before Control PM Emissions= 3 lb/hr * 8760 hrs/yr * ton/2000 lb = **13.14 tons/yr**

6) **FILTER EFFICIENCY** 99.80 % (This first filtration system that is in the wheel blast unit is used to recover the shots)

7) **DUST EMISSION FROM DUST COLLECTOR EXHAUST :**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Emission from collector = | | inlet dust load in | | gr/scf | x | 100-filter efficiency/100 | | | | |
| | = | 1.624 | x | 0.002 | = | 0.0032 | gr/scf | | | |
| Metric units = | grams | x | mg | x | cu.ft. | x | grains | = | mg/m3 | |
| | grains | | grams | | cu.meters | | cu.ft. | | | |
| | 1 | x | 1000 | x | 1 | x | 0.0032 | = | 7.44 | |
| | 15.4324 | | 1 | | 0.0283 | | | | | |
| Hourly emissions = | 38.975 | lb/hr | x | (100-filter eff.) x 100 | | | = | 0.08 | lb/hr | |
| Daily emissions = | 24 | hr/day | x | 0.0780 | lb/hr | | = | 1.9 | lb/day | |
| Yearly emissions = | 350 | days/yr | x | 1.8708 | lb/day | | = | 654.8 | lb/year | /20000 |

**Company Name:** **Honda Manufacturing of Indiana, LLC**
**Address City IN Zip:** **2755 N. Michigan Avenue, Greensburg, IN 47240**
**Part 70 Operating Permit Renewal No.:** **031-30127**
**Plt ID:** **031-00026**
**Reviewer:** **Aida DeGuzman**
**Application Receipt Date :** **1/18/2011**

8) **AFTER FILTER EFFICIENCY :** = 95 % (This is a 2nd filtration system)

9) **EMISSIONS FROM AFTER FILTER EXHAUST :**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Emission from a/f filters = | | D/C emissions in gr/scf gr/scf | | | x | 100-filter efficiency/100 | | | |
| | = | 0.0032 | x | 0.05 | = | | | 0.00016 | gr/scf |
| Metric units = | grams / grains | x | mg / grams | x | cu.ft. / cu.meters | x | grains / cu.ft. | = | mg/m3 |
| | 1 / 15.4324 | x | 1000 / 1 | x | 1 / 0.0283 | x | 0.0000 | = | 0.372 |
| Hourly emissions = | 0.0780 lb/hr | | x | (100-filter eff.) x 100 | | | = | 0.0039 | lb/hr |
| Daily emissions = | 24 hr/day | | x | 0.0039 lb/hr | | | = | 0.0935 | lb/day |
| Yearly emissions = | 350 days/yr | | x | 0.0935 lb/day | | | = | 32.7 | lb/year |
| | | | | | | | = | **0.02** | **ton/yr** |

10) **TOTAL SOLID WASTE COLLECTED :**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| = inlet load t | = | | | | | | | | |
| = | x | 99.8 / 100 | + | 36.00 | + | 2.975 | = | 38.98 | lb/hr |
| Daily material collected = | | 24 hr/day | | x | 38.9750 lb/hr | | = | 935.4 | lb/day |
| Yearly material collected = | | 350 days / year | | x | 935.4 lbs / day | | x | 1 / 2000 | Ton / lbs |
| | = | 163.7 Tons/year | | | | | | | |

**(*)** **SPECIAL NOTES:**

1) American Conference of Governmental Industrial Hygienists list the TLV (Threshold Limit) = 38.975
Value) for "nuisance particulates" at…… 1 mg/m3.
Emissions for above are…….. 0.372 mg/m3.
This is…… 37.18 % of the TLV.

2) The above value is for the maximum surface area exposed to blasting at any time.
This will relatively vary with the size and geometry of the components being cleaned.

3) The final value as stated in note.1 varies with the type of surface and rust on the components.
Hence any change in surface / rust level will have direct impact on emission value.

4) The final value as stated in note.1 varies with time.
Hence any change in loading-unloading will have direct impact on Emission value.

5) The final value as stated in note.1 varies with type and quality of abrasive media being used.
Hence any change in quality of abrasive media will have direct impact on Emission value.

6) These calculations are strictly empirical and are based on the past field installation experience.
Hence Wheelabrator is not responsible for any deviation in the values during actual field test.

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Fascia/Bumper Coating Line (PO-02)
**Emission Unit Description:** Primer Booth, Basecoat Booth, Clearcoat Booth, Topcoat Oven, and associated flash zones using waterborne primer, solventborne basecoat, and solventborne clearcoat

| Production | Maximum Production | |
|---|---|---|
| | Sets/hr | Sets/yr |
| Annual Production Target | 120 | 250,000 |
| Repaint Hangers | 120 | 37,500 |
| Service Hangers | 120 | 25,000 |

## ANNUAL EMISSION CALCULATIONS

| Annual VOC & HAP Emission Calculations | | | | Package VOC | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Uncontrolled Emissions | | | | | Emissions after control | |
| Chemical | (gal/hanger) | Hangers/yr | Material Usage (gal/yr) | VOC Content (lb VOC/gal) | HAP Content (lb HAP/gal) | VOC (ton/yr) | HAP (ton/yr) | Booth Capture (%) | Oven Capture (%) | Incinerator Efficiency (%) | VOC (ton/yr) | HAP (ton/yr) |
| Waterborne Primer | 0.127 | 250,000 | 31,750 | 1.03 | 0.27 | 16 | 4 | 0.00% | 0.00% | 0.00% | 16 | 4 |
| Waterborne Repaint Primer | 0.127 | 37,500 | 4,763 | 1.03 | 0.27 | 2 | 1 | 0.00% | 0.00% | 0.00% | 2 | 1 |
| Solventborne Basecoat | 0.158 | 287,500 | 45,281 | 4.35 | 0.48 | 98 | 11 | 90.00% | 0.00% | 95.00% | 14 | 2 |
| Solventborne Service Parts Basecoat | 0.158 | 25,000 | 3,938 | 4.53 | 0.18 | 9 | 0 | 90.00% | 0.00% | 95.00% | 1 | 0 |
| Solventborne Clearcoat | 0.150 | 287,500 | 43,125 | 4.57 | 0.37 | 99 | 8 | 80.00% | 10.00% | 95.00% | 14 | 1 |
| Catalyst (Basecoat) | 0.039 | 312,500 | 12,305 | 1.88 | 0.00 | 12 | 0 | 90.00% | 0.00% | 95.00% | 2 | 0 |
| Catalyst (Clearcoat) | 0.038 | 287,500 | 10,781 | 1.88 | 0.00 | 10 | 0 | 80.00% | 10.00% | 95.00% | 1 | 0 |
| **Total (tons)** | | | **151,942** | | | **246.36** | **24.11** | | | | **51.80** | **7.71** |

| Annual PM Emission Calculations | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Chemical | (gal/unit) | Material Usage (gal/yr) | Coating Density (lb/gal) | Solid Content (%wt) | Total Solids (ton/yr) | Transfer Efficiency (%) | Uncontrolled Emissions (ton PM/yr) | Scrubber Efficiency (%) | Emissions after Control (ton PM/yr) |
| Waterborne Primer | 0.127 | 31,750 | 9.53 | 32.4% | 49 | 25% | 37 | 99.00% | 0.37 |
| Waterborne Repaint Primer | 0.127 | 4,763 | 9.53 | 32.4% | 7 | 25% | 6 | 99.00% | 0.06 |
| Solventborne Basecoat | 0.158 | 45,281 | 8.27 | 49.9% | 93 | 40% | 56 | 99.00% | 0.56 |
| Solventborne Service Parts Basecoat | 0.158 | 3,938 | 8.22 | 45.5% | 7 | 40% | 4 | 99.00% | 0.04 |
| Solventborne Clearcoat | 0.150 | 43,125 | 8.12 | 45.6% | 80 | 45% | 44 | 99.00% | 0.44 |
| Catalyst (Basecoat) | 0.039 | 12,305 | 9.23 | 80.3% | 46 | 40% | 27 | 99.00% | 0.27 |
| Catalyst (Clearcoat) | 0.038 | 10,781 | 9.23 | 80.3% | 40 | 45% | 22 | 99.00% | 0.22 |
| **Total (tons)** | | **151,942** | | | **0.16** | | **196.00** | | **1.96** |

| | Type | VOC (lb/gal) Before Control | VOC (lb/gal) After Control |
|---|---|---|---|
| Primer | Waterborne | 1.03 | 1.03 |
| BC | Solventborne | 3.86 | 0.56 |
| CC | Solventborne | 4.03 | 0.58 |

Overall Control Efficiency (%) 78.97%

| | Material Usage ga/yr | VOC (lb/gal) Before Control | VOC (lb/gal) After Control |
|---|---|---|---|
| SC | 57,586 | 3.86 | 0.56 |
| IP Booth | 31750 | 1.01 | 1.01 |

| | | |
|---|---|---|
| Including IP Painting Booth | Weighted Avera | 0.72 |

**Methodology:**
Uncontrolled VOC/HAP Emissions (ton/yr) = [Number of Hangers/yr * Material Usage (gal/hanger) * VOC/HAP Content (lb (VOC/HAP)/gal)]/2000 lb/ton
Controlled VOC/HAP Emissions (ton/yr) = Uncontrolled Emissions (VOC/HAP (ton/yr) * [1- (Booth Capture Efficiency (%) + Oven Capture Efficiency (%) * Incinerator Efficiency (%)]

Primer VOC (lb/gal) Before Control = [Uncontrolled VOC (Waterborne Primer + Waterborne Repaint Primer) (ton/yr)] * (2000 lb/ton) / [Material Usage (Waterborne Primer + Waterborne Repaint Primer) (gal/yr)]
Basecoat VOC (lb/gal) Before Control = [Uncontrolled VOC (Solventborne Basecoat + Solventborne Service Parts Basecoat + Catalyst (Basecoat)) (ton/yr)] * 2000 lb/ton / [Material Usage (Solventborne Basecoat+ Solventborne Service Parts Basecoat + Catalyst (Basecoat)) (gal/yr)]
Clearcoat VOC (lb/gal) Before Control = [Uncontrolled VOC (Solventborne Clearcoat + Catalyst (Clearcoat)) (ton/yr)] * 2000 lb/ton / [Material Usage (Solventborne Clearcoat+ Catalyst (Clearcoat)) (gal/yr)]

Primer VOC (lb/gal) After Control = [Controlled VOC (Waterborne Primer + Waterborne Repaint Primer) (ton/yr)] * (2000 lb/ton) / [Material Usage (Waterborne Primer + Waterborne Repaint Primer) (gal/yr)]
Basecoat VOC (lb/gal) After Control = [Controlled VOC (Solventborne Basecoat + Solventborne Service Parts Basecoat + Catalyst (Basecoat)) (ton/yr)] * 2000 lb/ton / [Material Usage (Solventborne Basecoat+ Solventborne Service Parts Basecoat + Catalyst (Basecoat)) (gal/yr)]
Clearcoat VOC (lb/gal) After Control = [Controlled VOC (Solventborne Clearcoat + Catalyst (Clearcoat)) (ton/yr)] * 2000 lb/ton / [Material Usage (Solventborne Clearcoat+ Catalyst (Clearcoat)) (gal/yr)]

Total Solids (ton PM/yr) = (Material usage (gal/yr) * Coating Density (lb/gal) *Solid Content (% wt)) / 2000 (lb/ton)
Uncontrolled Emissions (ton PM/yr) = Total Solids (ton/yr) * (1- Transfer Efficiency (%))
Emissions after Control (ton PM/yr) = Uncontrolled Emissions (Ton PM/yr) * (1-Scrubber Efficiency)

Overall Control Efficiency (%) = 1 - (Controlled Emissions (ton/yr)/(Uncontrolled Emissions (ton/yr))

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Fascia/Bumper Coating Line (PO-02)
**Emission Unit Description:** Primer Booth, Basecoat Booth, Clearcoat Booth, Topcoat Oven, and associated flash zones using waterborne primer, waterborne basecoat, and solventborne clearcoat

| Production | Maximum Production Sets/hr | Sets/yr |
|---|---|---|
| Annual Production Target | 120 | 250,000 |
| Repaint Hangers | 120 | 37,500 |
| Service Hangers | 120 | 25,000 |

## ANNUAL EMISSION CALCULATIONS

| Annual VOC & HAP Emission Calculations | | | | Package VOC | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Uncontrolled Emissions | | | | | Emissions after control | |
| Chemical | (gal/hanger) | Hangers/yr | Material Usage (gal/yr) | VOC Content (lb VOC/gal) | HAP Content (lb HAP/gal) | VOC (ton/yr) | HAP (ton/yr) | Booth Capture (%) | Oven Capture (%) | Incinerator Efficiency (%) | VOC (ton/yr) | HAP (ton/yr) |
| Waterborne Primer | 0.127 | 250,000 | 31,750 | 1.03 | 0.27 | 16 | 4 | 0.00% | 0.00% | 0.00% | 16 | 4 |
| Waterborne Repaint Primer | 0.127 | 37,500 | 4,763 | 1.03 | 0.27 | 2 | 1 | 0.00% | 0.00% | 0.00% | 2 | 1 |
| Waterborne Basecoat | 0.315 | 287,500 | 90,563 | 1.17 | 0.21 | 53 | 10 | 0.00% | 0.00% | 0.00% | 53 | 10 |
| Waterborne Service Parts Basecoat | 0.315 | 25,000 | 7,875 | 1.17 | 0.21 | 5 | 1 | 0.00% | 0.00% | 0.00% | 5 | 1 |
| Solventborne Clearcoat | 0.150 | 287,500 | 43,125 | 4.57 | 0.37 | 99 | 8 | 80.00% | 10.00% | 95.00% | 14 | 1 |
| Catalyst (Clearcoat) | 0.041 | 287,500 | 11,730 | 1.88 | 0.00 | 11 | 0 | 80.00% | 10.00% | 95.00% | 2 | 0 |
| **Total (tons)** | | | **189,805** | | | **185.98** | **23.24** | | | | **92.28** | **16.42** |

| Annual PM Emission Calculations | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Chemical | (gal/unit) | Material Usage (gal/yr) | Coating Density (lb/gal) | Solid Content (%wt) | Total Solids (ton/yr) | Transfer Efficiency (%) | Uncontrolled Emissions (ton PM/yr) | Scrubber Efficiency (%) | Emissions after Control (ton PM/yr) |
| Waterborne Primer | 0.127 | 31,750 | 9.53 | 32.4% | 49 | 25% | 37 | 99.00% | 0.37 |
| Waterborne Repaint Primer | 0.127 | 4,763 | 9.53 | 32.4% | 7 | 25% | 6 | 99.00% | 0.06 |
| Waterborne Basecoat | 0.315 | 90,563 | 8.65 | 26.9% | 105 | 35% | 68 | 99.00% | 0.68 |
| Waterborne Service Parts Basecoat | 0.315 | 7,875 | 8.65 | 26.9% | 9 | 35% | 6 | 99.00% | 0.06 |
| Solventborne Clearcoat | 0.150 | 43,125 | 8.12 | 45.6% | 80 | 45% | 44 | 99.00% | 0.44 |
| Catalyst (Clearcoat) | 0.041 | 11,730 | 9.23 | 80.3% | 43 | 45% | 24 | 99.00% | 0.24 |
| **Total (tons)** | | **189,805** | | | **43.47** | | **23.91** | | **1.84** |

| | Type | VOC (lb/gal) Before Control | VOC (lb/gal) After Control |
|---|---|---|---|
| Primer | Waterborne | 1.03 | 1.03 |
| BC | Waterborne | 1.17 | 1.17 |
| CC | Solventborne | 4.00 | 0.58 |

Overall Control Efficiency (%) 50.38%

| | Material Usage ga/yr | VOC (lb/gal) Before Control | VOC (lb/gal) After Control |
|---|---|---|---|
| SC | 102,293 | 3.86 | **0.56** |

**Methodology:**
Uncontrolled VOC/HAP Emissions (ton/yr) = [Number of Hangers/yr * Material Usage (gal/hanger) * Avg. VOC/HAP Content (lb (VOC/HAP)/gal)]/2000 lb/ton
Controlled VOC/HAP Emissions (ton/yr) = Uncontrolled Emissions (VOC/HAP (ton/yr) * [1- (Booth Capture Efficiency (%) + Oven Capture Efficiency (%) * Incinerator Efficiency (%)]

Primer VOC (lb/gal) Before Control = [Uncontrolled VOC (Waterborne Primer + Waterborne Repaint Primer) (ton/yr)] * (2000 lb/ton) / [Material Usage (Waterborne Primer + Waterborne Repaint Primer) (gal/yr)]
Basecoat VOC (lb/gal) Before Control = [Uncontrolled VOC (Solventborne Basecoat + Solventborne Service Parts Basecoat) (ton/yr)] * 2000 lb/ton / [Material Usage (Solventborne Basecoat+ Solventborne Service Parts Basecoat) (gal/yr)]
Clearcoat VOC (lb/gal) Before Control = [Uncontrolled VOC (Solventborne Clearcoat + Catalyst (Clearcoat)) (ton/yr)] * 2000 lb/ton / [Material Usage (Solventborne Clearcoat+ Catalyst (Clearcoat)) (gal/yr)]

Primer VOC (lb/gal) After Control = [Controlled VOC (Waterborne Primer + Waterborne Repaint Primer) (ton/yr)] * (2000 lb/ton) / [Material Usage (Waterborne Primer + Waterborne Repaint Primer) (gal/yr)]
Basecoat VOC (lb/gal) After Control = [Controlled VOC (Solventborne Basecoat + Solventborne Service Parts Basecoat) (ton/yr)] * 2000 lb/ton / [Material Usage (Solventborne Basecoat+ Solventborne Service Parts Basecoat) (gal/yr)]
Clearcoat VOC (lb/gal) After Control = [Controlled VOC (Solventborne Clearcoat + Catalyst (Clearcoat)) (ton/yr)] * 2000 lb/ton / [Material Usage (Solventborne Clearcoat+ Catalyst (Clearcoat)) (gal/yr)]

Total Solids (ton PM/yr) = (Material usage (gal/yr) * Avg. Coating Density (lb/gal) * Avg. Solid Content (% wt)) / 2000 (lb/ton)
Uncontrolled Emissions (ton PM/yr) = Total Solids (ton/yr) * (1- Transfer Efficiency (%))
Emissions after Control (ton PM/yr) = Uncontrolled Emissions (Ton PM/yr) * (1-Scrubber Efficiency)

Overall Control Efficiency (%) = 1 - (Controlled Emissions (ton/yr)/(Uncontrolled Emissions (ton/yr))

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** IP Painting Line (PO-03)
**Emission Unit Description:** Coating Booth and oven using waterborne coatings

| | As Applied | | | | | | |
|---|---|---|---|---|---|---|---|
| Chemical | Usage gal/unit | Prod units/yr | Usage (gal/yr) | HAP Content (lb HAP/gal) | VOC Content (lb VOC/gal) | Uncontrolled HAP (lb VOC/yr) | Uncontrolled VOC (lb VOC/yr) |
| Plastic Parts Coating | 0.041 | 312,500 | 12,813 | 0.18 | 1.01 | 2306.25 | 12,941 |
| Totals (lbs) | | | | | | 2,306 | 12,941 |
| Totals (tons) | | | | | | 1.15 | 6.47 |

**VOC (lb/gal) =** 1.01
**Control Efficiency =** 0.00%

| PM Emission Calculations - Annual | | | | | | | |
|---|---|---|---|---|---|---|---|
| Chemical | Usage (gal/yr) | Density of Coating (lb/gal) | Solid Content (wt.%) | TE (%) | Solids DRE (%) | PM Emissions (lb/yr) | Applied Solids (gal/yr) |
| Plastic Parts Coating | 12,813 | 9.77 | 42.52% | 25% | 98.0% | 798 | 1362 |
| Totals (lbs) | 12,813 | | | | | 798 | |
| Totals (tons) | | | | | | 0.40 | |

**Methodology:**
VOC/HAP Emissions (lb/yr) = Material Usage (gal/yr) * Avg. VOC/HAP Content (lb (VOC/HAP)/gal)
VOC/HAP Emissions (ton/yr) =VOC/HAP Emissions (lb/yr) / 2000 lb/ton
VOC (lb/gal) = VOC Emissions (lb/yr) / Material Usage (gal/yr)

Emissions (lb PM/yr) = Material usage (gal/yr) * Avg. Coating Density (lb/gal) * Avg. Solid Content (% wt) * (1- Transfer Efficiency (%)) * (1- Solids DRE(%))
Emissions (lb PM/yr) = Emissions (lb PM/yr) / 2000 (lb/ton)
Applied solids, gal/yr = usage, gal/yr * %solids content * % transfer efficiency
lb/gacs after control = VOC emissions after control, lbs/yr * yr/gallons,solids applied

**Company Name:** **Honda Manufacturing of Indiana, LLC**
**Address City IN Zip:** **2755 N. Michigan Avenue, Greensburg, IN 47240**
**Part 70 Operating Permit Renewal No.:** **031-30127**
**Plt ID:** **031-00026**
**Reviewer:** **Aida DeGuzman**
**Application Receipt Date :** **1/18/2011**

IP Painting Line (PO-03) Variability in Coatings for PSD/BACT

| Batch # | Usage (gallons) | Coating Density (lb/gal) | Anal VOC (lb/gal) | Anal Solids (% vol) | Anal Solids (% wt) | Water (%vol) | | lb/gacs @ 25% TE | lb/gal minus water |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| 1200829 | 220.70 | 9.46 | 0.92 | 29.97% | 38.71% | 45.28% | | 12.28 | 1.68 |
| 1200829 | 191.72 | 9.46 | 0.92 | 29.97% | 38.71% | 45.28% | | 12.28 | 1.68 |
| 1200829 | 112.42 | 9.46 | 0.92 | 29.97% | 38.71% | 45.28% | | 12.28 | 1.68 |
| 1397467 | 143.10 | 9.47 | 0.87 | 29.97% | 39.27% | 45.28% | | 11.61 | 1.59 |
| 1397467 | 225.00 | 9.47 | 0.87 | 29.97% | 39.27% | 45.28% | | 11.61 | 1.59 |
| 1397467 | 129.14 | 9.47 | 0.87 | 29.97% | 39.27% | 45.28% | | 11.61 | 1.59 |
| 1564421 | 138.80 | 9.47 | 0.89 | 29.39% | 38.42% | 45.28% | | 12.11 | 1.63 |
| 1564421 | 209.82 | 9.47 | 0.89 | 29.39% | 38.42% | 45.28% | | 12.11 | 1.63 |
| 1658108 | 41.72 | 9.48 | 0.90 | 30.05% | 38.59% | 45.28% | | 11.98 | 1.64 |
| 1658108 | 198.62 | 9.48 | 0.90 | 30.05% | 38.59% | 45.28% | | 11.98 | 1.64 |
| 1658108 | 206.74 | 9.48 | 0.90 | 30.05% | 38.59% | 45.28% | | 11.98 | 1.64 |
| 1786486 | 74.84 | 9.47 | 0.91 | 30.08% | 38.61% | 45.28% | | 12.10 | 1.66 |
| 1786486 | 0.00 | 9.47 | 0.91 | 30.08% | 38.61% | 45.28% | | 12.10 | 1.66 |
| 1786486 | 0.00 | 9.47 | 0.91 | 30.08% | 38.61% | 45.28% | | 12.10 | 1.66 |
| | | | | | | | | | |
| 867265 | 39.49 | 9.62 | 0.84 | 29.21% | 39.25% | 45.28% | | 11.50 | 1.54 |
| 1258554 | 29.30 | 9.36 | 0.85 | 27.42% | 36.13% | 45.28% | | 12.40 | 1.55 |
| 1258554 | 98.62 | 9.36 | 0.85 | 27.42% | 36.13% | 45.28% | | 12.40 | 1.55 |
| 1258554 | 82.59 | 9.36 | 0.85 | 27.42% | 36.13% | 45.28% | | 12.40 | 1.55 |
| 1258554 | 86.89 | 9.36 | 0.85 | 27.42% | 36.13% | 45.28% | | 12.40 | 1.55 |
| 1258554 | 84.66 | 9.36 | 0.85 | 27.42% | 36.13% | 45.28% | | 12.40 | 1.55 |
| 1258554 | 94.32 | 9.36 | 0.85 | 27.42% | 36.13% | 45.28% | | 12.40 | 1.55 |
| 1258554 | 123.78 | 9.36 | 0.85 | 27.42% | 36.13% | 45.28% | | 12.40 | 1.55 |
| 1258554 | 56.74 | 9.36 | 0.85 | 27.42% | 36.13% | 45.28% | | 12.40 | 1.55 |
| 1258554 | 0.00 | 9.36 | 0.85 | 27.42% | 36.13% | 45.28% | | 12.40 | 1.55 |
| 1258554 | 0.00 | 9.36 | 0.85 | 27.42% | 36.13% | 45.28% | | 12.40 | 1.55 |
| | | | | | | | | | |
| 1855625 | 29.80 | 9.77 | 0.85 | 31.47% | 40.35% | 59.84% | | 10.80 | 2.12 |
| 1855625 | 163.80 | 9.77 | 0.85 | 31.47% | 40.35% | 59.84% | | 10.80 | 2.12 |
| 1866798 | 11.20 | 9.76 | 1.01 | 32.12% | 41.78% | 56.16% | | 12.58 | 2.30 |
| 1866798 | 183.28 | 9.76 | 1.01 | 32.12% | 41.78% | 56.16% | | 12.58 | 2.30 |
| 1940823 | 38.96 | 9.77 | 0.849 | 31.45% | 42.52% | 49.26% | | 10.80 | 1.67 |
| 1940823 | 147.24 | 9.77 | 0.849 | 31.45% | 42.52% | 49.26% | | 10.80 | 1.67 |
| 1940823 | 104.83 | 9.77 | 0.85 | 31.45% | 42.52% | 49.26% | | 10.81 | 1.68 |
| | | | | | | | | | |
| 1855632 | 32.72 | 9.82 | 0.85 | 31.17% | 42.12% | 58.15% | | 10.86 | 2.02 |
| 1855632 | 104.83 | 9.82 | 0.85 | 31.17% | 42.12% | 58.15% | | 10.86 | 2.02 |
| 1855632 | 122.24 | 9.82 | 0.85 | 31.17% | 42.12% | 58.15% | | 10.86 | 2.02 |
| 1855632 | 8.28 | 9.82 | 0.85 | 31.17% | 42.12% | 58.15% | | 10.86 | 2.02 |
| 1869042 | 102.92 | 9.82 | 0.84 | 31.14% | 40.90% | 49.28% | | 10.79 | 1.66 |
| 1869042 | 129.83 | 9.82 | 0.84 | 31.14% | 40.90% | 49.28% | | 10.79 | 1.66 |
| | 3,768.94 | 9.55 | 0.88 | 29.94% | 39.21% | 48.06% | | 11.78 | 1.71 |

Note: Considering the worst case coating

| | | |
|---|---|---|
| **Max:** | **12.58** | **2.30** |

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** BPa Polishing (PO-04)
**Emission Unit Description:** Booth for polishing and scuffing plastic parts with air powered hand tools

| MSDS Name | Usage (gal/yr) | VOC Content (lb VOC/gal) | VOC Emissions (lb VOC/year) | HAP Content (lb HAP/gal) | Total HAP Emissions (lb HAP/year) | Individual HAPs: Xylene -mixed isomers (lb/year) |
|---|---|---|---|---|---|---|
| 3M FINESSE-IT POLISH - PURPLE; PN 51055, PN 51056 | 100.0 | 1.21 | 121 | 0.00 | 0.00 | 0.00 |
| 3M FINESSE-IT MARINE PASTE COMPOUND - WHITE | 100.0 | 3.08 | 308 | 0.02 | 1.98 | 1.98 |
| 3M FINESSE-IT FINISHING MATERIAL, PN 051144-81820 | 100.0 | 2.46 | 246 | 0.00 | 0.00 | 0.00 |
| Totals (lbs/yr) | 300.0 | | 675 | | 1.98 | 1.98 |
| Totals (tons/yr) | | | **0.34** | | **0.0010** | **0.0010** |

**HAP Data**

| 3M FINESSE-IT MARINE PASTE COMPOUND - WHITE | |
|---|---|
| Density | HAP Content (wt%) |
| lb/gal | Xylene (mixed isomers) |
| | 1330-20-7 |
| 9.9 | 0.2% |

**Methodology:**
VOC/HAP Emissions (lb/yr) = Material Usage (gal/yr) * Avg. VOC/HAP Content (lb (VOC/HAP)/gal)
VOC/HAP Emissions (ton/yr) = VOC/HAP Emissions (lb/yr) / 2000 (lb/ton)

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Miscellaneous Cleaning & Purge Solvent (PO-05)
**Emission Unit Description:** Purge solvent usage and cleaning activities throughout the plastics department

| VOC Emission Calculations | | | | | |
|---|---|---|---|---|---|
| **Chemical** | **Usage** (gal/yr) | **VOC Content** (lb VOC/gal) | **VOC Emissions** (lb VOC/yr) | **HAP Content** (lb HAP/gal) | **HAP Emissions** (lb HAP/yr) |
| Bumper Purge | 59,688 | 7.22 | 430,944 | 1.01 | 60,284 |
| Ethyl Acetate | 100 | 7.51 | 751 | - | - |
| Isopropyl Alcohol | 1,500 | 6.55 | 9,825 | - | - |
| Methanol | 100 | 6.61 | 661 | 6.61 | 661 |
| Methyl Amyl Ketone | 100 | 6.80 | 680 | - | - |
| IPA Pre-saturated Wipers | 300 | 5.63 | 1,689 | - | - |
| Recovered Bumper Purge (90%) | | | (387,849) | | (54,256) |
| Totals | 61,788 | | 56,700 | | 6,689 |
| Totals (tons/year) | | | **28.35** | | 3.34 |

**Methodology:**
VOC/HAP Emissions (lb/yr) = Material Usage (gal/yr) * VOC/HAP Content (lb (VOC/HAP)/gal)
Total VOC/HAP Emissions (lb/yr) = VOC/HAP Emissions (lb/yr) - Recovered Bumper Purge (%)
VOC/HAP Emissions (ton/yr) = VOC/HAP Emissions (lb/yr) / 2000 (lb/ton)

## HAP COMPONENT EMISSION CALCULATIONS

| | | HAP Component (lb/gal of coating) | | |
|---|---|---|---|---|
| **Chemical** | **Material Usage** (gal/hr) | Xylene 1330-20-7 | Ethyl benzene 100-41-4 | Methanol 67-56-1 |
| Bumper Purge | 14.92 | 0.36 | 0.07 | 0.72 |
| Ethyl Acetate | 0.03 | | | |
| Isopropyl Alcohol | 0.38 | | | |
| Methanol | 0.03 | | | 6.61 |
| Methyl Amyl Ketone | 0.03 | | | |
| IPA Pre-saturated Wipers | 0.08 | | | |

| | | HAP Component Emissions (lb/hr) - before control | | |
|---|---|---|---|---|
| **Chemical** | **Material Usage** (gal/hr) | Xylene 1330-20-7 | Ethyl benzene 100-41-4 | Methanol 67-56-1 |
| Bumper Purge | 14.92 | 5.37 | 1.04 | 10.74 |
| Ethyl Acetate | 0.03 | - | - | - |
| Isopropyl Alcohol | 0.38 | - | - | - |
| Methanol | 0.03 | | | 0.17 |
| Methyl Amyl Ketone | 0.03 | | | - |
| IPA Pre-saturated Wipers | 0.08 | | | |
| **Total** | **15.45** | **5.37** | **1.04** | **10.91** |

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Avenue, Greensburg, IN 47240
**Part 70 Operating Permit Renewal No.:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Application Receipt Date :** 1/18/2011

**Emission Unit (Source) ID:** Plastic Injection Molding (PO-06, PO-07)
**Emission Unit Description:** Closed injection molding of plastic parts.

**Molding Emissions:**

Molding polymer usage rate (lb/hour) = 1350

**VOC Emissions**:
Maximum VOC content of polymer = 1%

**Molded Polymer Emissions:**

| | | | | VOC Emissions | |
|---|---|---|---|---|---|
| **Machine** | **Max. Usage (lb/hr)** | **Max. Usage (ton/year)** | **VOC (lb/lb)** | **lb/hour** | **Potential tons/year** |
| 1 | 1350 | 5913 | 0.0003 | 0.405 | 1.774 |
| 2 | 1350 | 5913 | 0.0003 | 0.405 | 1.774 |
| | | | | | |
| **Total** | 2700 | | | 0.810 | 3.548 |

**Misc. Release Agents/Cleaner Emissions (Total for 3 Machines):**

| **Material** | **Max. Usage (gal/hour)** | **Material Density (lb/gal)** | **Max. Usage (lb/hour)** | **max. Usage (gal/year)** | **VOC (lb/gal)** | **VOC (lb/hour)** | **VOC Emissions (tons/year)** |
|---|---|---|---|---|---|---|---|
| Mold release | 0.034 | 5.8 | 0.20 | 136 | 5.80 | 0.20 | 0.39 |
| Mold protectant | 0.009 | 6.7 | 0.06 | 36 | 5.65 | 0.05 | 0.10 |
| Mold cleaner | 0.020 | 6.3 | 0.13 | 80 | 6.30 | 0.13 | 0.25 |
| Cleaning solvent | 0.1050 | 6.6 | 0.69 | 420 | 6.60 | 0.69 | 1.39 |
| | | | | | | | |
| **Total** | 0.17 | | 1.08 | 671 | | 1.07 | 2.13 |

| | **lb/hr** | **tons/yr** |
|---|---|---|
| **Total VOC** | 1.88 | 5.68 |

Appendix A: Emission Calculations
Company Name: Honda Manufacturing of Indiana, LLC
Address, City, IN Zip: 2755 N. Michigan Avenue, Greensburg, IN 47240
Part 70 Operating permit Renewal: T 031-30127-00026
Reviewer: Aida De Guzman
Date Application Received: 18-Jan-2011

**Emission Unit (Source) ID:** **Plastic Pellet Storage Silos (PO-11, PO-12 and PO-18)**
**Emission Unit Description:** **Closed**

## Plastic Handling Emission C

| Maximum silo loading rate (tons plastic/hr) | PM Emission Factor (lb PE/ton) | PM Emissions (ton/year) |
|---|---|---|
| 48 | 0.0006 | 0.13 |

AP-42 Emission Factors in grams/kilogram, Table 6.6-2-1, Edition 9/91 (Reformatted 1/95)
0.0003 gram/kg Controlled EF = 0.0003 gram/kg * lb/453.6 gram * 907.18 kg/ton =- 0.0006 lb/ton

| Injection Machine Rate (lbs/hour) | Number of Machines | PM Emission Factor (lb PE/ton) | PM Emissions (ton/year) |
|---|---|---|---|
| 1,350 | 3 | 0.0006 | 0.005 |

## Sourcewide Natural Gas Combustion Emissions with Usage Limitation

**Natural Gas**

**Emission Factors:**

| | | |
|---|---|---|
| NOx | 0.10 lb/MMBTU | "Worst-case" based on BACT determinations |
| CO | 0.183 lb/MMBTU | "Worst-case" based on NOx BACT determinations |
| PM (total) | 0.0074 lb/MMBTU | AP-42 1.4 Natural Gas Combustion Table 1.4-2 (7/98) assuming 1025 BTU/cubic foot heating value 7.6 lb/million cubic feet |
| $SO_2$ | 0.000585 lb/MMBTU | AP-42 1.4 Natural Gas Combustion Table 1.4-2 (7/98) assuming 1025 BTU/cubic foot heating value 0.6 lb/million cubic feet |
| VOC | 0.00536 lb/MMBTU | AP-42 1.4 Natural Gas Combustion Table 1.4-2 (7/98) assuming 1025 BTU/cubic foot heating value 5.5 lb/million cubic feet |

**Usage limitation =** **1,000,000 decatherms**
**@ average of 1025 MMBtu/MMCF**

**Maximum rolling 12-month emissions (tons/rolling 12-months):**

| | |
|---|---|
| NOx | 50.0 |
| CO | 91.5 |
| PM (total) | 3.7 |
| $SO_2$ | 0.3 |
| VOC | 2.7 |

| | |
|---|---|
| **Fuel Limit** | **976 MMCF** |

**CO Limit** **0.183 lb/MMBtu * 1025 MMBtu/MMCF = 187.6 lb/MMCF**

| | |
|---|---|
| **Unlimited PTE** | **529 MMBtu/hr*** |

Note*: sourcewide natural gas fired heat input - propane fired heaters

Note: 1 decatherm = 1 MMBtu
CO = N.G. limit, decatherm/yr * CO Ef (lb/MMBtu) * ton/2000 lb
Fuel limit , MMCF = 1,000,000 decatherm * 1 MMBtu/1 decatherm * 1 MMCF/1025 MMBtu

| HAP | | Emission Factor | | Limited PTE | | Unlimited PTE | |
|---|---|---|---|---|---|---|---|
| | | | | Total HAP | Metallic HAP | Total HAP | Metallic HAP |
| CAS # | Name | (lb/scf$^6$) | (lb/MMBTU) | (tons/year) | (tons/year) | (tons/year) | (tons/year) |
| 91-57-6 | 2-Methylnaphthalene | 0.000024 | 2.3529E-08 | 1.17647E-05 | | 5.4518E-05 | |
| 56-49-5 | 3-Methylchloranthrene | 0.0000018 | 1.7647E-09 | 8.82353E-07 | | 4.0889E-06 | |
| | 7,12-Dimethylbenz(a)anthracene | 0.000016 | 1.5686E-08 | 7.84314E-06 | | 3.6345E-05 | |
| 83-32-9 | Acenaphthene | 0.0000018 | 1.7647E-09 | 8.82353E-07 | | 4.0889E-06 | |
| 203-96-8 | Acenaphthylene | 0.0000018 | 1.7647E-09 | 8.82353E-07 | | 4.0889E-06 | |
| 120-12-7 | Anthracene | 0.0000024 | 2.3529E-09 | 1.17647E-06 | | 5.4518E-06 | |
| 56-55-3 | Benz(a)anthracene | 0.0000018 | 1.7647E-09 | 8.82353E-07 | | 4.0889E-06 | |
| 71-43-2 | Benzene | 0.0021 | 2.0588E-06 | 0.001029412 | | 0.00477034 | |
| 50-32-8 | Benzo(a)pyrene | 0.0000012 | 1.1765E-09 | 5.88235E-07 | | 2.7259E-06 | |
| 205-99-2 | Benzo(b)fluoranthene | 0.0000018 | 1.7647E-09 | 8.82353E-07 | | 4.0889E-06 | |
| 191-24-2 | Benzo(g,h,i)perylene | 0.0000012 | 1.1765E-09 | 5.88235E-07 | | 2.7259E-06 | |
| 205-82-3 | Benzo(k)fluoranthene | 0.0000018 | 1.7647E-09 | 8.82353E-07 | | 4.0889E-06 | |
| 218-01-9 | Chrysene | 0.0000018 | 1.7647E-09 | 8.82353E-07 | | 4.0889E-06 | |
| 53-70-3 | Dibenzo(a,h)anthracene | 0.0000012 | 1.1765E-09 | 5.88235E-07 | | 2.7259E-06 | |
| 25321-22-4 | Dichlorobenzene | 0.0012 | 1.1765E-06 | 0.000588235 | | 0.00272591 | |
| 206-44-0 | Fluoranthene | 0.000003 | 2.9412E-09 | 1.47059E-06 | | 6.8148E-06 | |
| 86-73-7 | Fluorene | 0.0000028 | 2.7451E-09 | 1.37255E-06 | | 6.3604E-06 | |
| 50-00-0 | Formaldehyde | 0.075 | 7.3529E-05 | 0.036764706 | | 0.17036912 | |
| 110-54-3 | Hexane | 1.8 | 0.00176471 | 0.882352941 | | 4.08885882 | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 0.0000018 | 1.7647E-09 | 8.82353E-07 | | 4.0889E-06 | |
| 91-20-3 | Naphthalene | 0.00061 | 5.9804E-07 | 0.00029902 | | 0.00138567 | |
| 85-01-8 | Phenanathrene | 0.000017 | 1.6667E-08 | 8.33333E-06 | | 3.8617E-05 | |
| 129-00-0 | Pyrene | 0.000005 | 4.902E-09 | 2.45098E-06 | | 1.1358E-05 | |
| 108-88-3 | Toluene | 0.0034 | 3.3333E-06 | 0.001666667 | | 0.0077234 | |
| 7440-38-2 | Arsenic | 0.0002 | 1.9608E-07 | | 9.80392E-05 | | 0.000454318 |
| 7440-41-7 | Beryllium | 0.000012 | 1.1765E-08 | | 5.88235E-06 | | 2.72591E-05 |
| 7440-43-9 | Cadmium | 0.0011 | 1.0784E-06 | | 0.000539216 | | 0.002498747 |
| 7440-47-3 | Chromium | 0.0014 | 1.3725E-06 | | 0.000686275 | | 0.003180224 |
| 7440-48-4 | Cobalt | 0.000084 | 8.2353E-08 | | 4.11765E-05 | | 0.000190813 |
| 7439-96-5 | Manganese | 0.00038 | 3.7255E-07 | | 0.000186275 | | 0.000863204 |
| 7439-97-6 | Mercury | 0.00026 | 2.549E-07 | | 0.000127451 | | 0.000590613 |
| 7440-02-0 | Nickel | 0.0021 | 2.0588E-06 | | 0.001029412 | | 0.004770335 |
| 7782-49-2 | Selenium | 0.000024 | 2.3529E-08 | | 1.17647E-05 | | 5.45181E-05 |
| N420 | Lead Compounds | 0.0005 | 4.90E-07 | | 0.000245098 | | 1.14E-03 |
| | | | **Total** | 0.92 | 0.00 | 4.28 | 0.01 |

Appendix A: Emission Calculations
Company Name: Honda Manufacturing of Indiana, LLC
Address, City, IN Zip: 2755 N. Michigan Avenue, Greensburg, IN 47240
Part 70 Operating permit Renewal: T 031-30127-00026
Reviewer: Aida De Guzman
Date Application Received: 18-Jan-2011

Process Related Burners Potential Emissions - Criteria

| Paint Process Burners | | Max Heat Input (MMBtu/hr) | Type | CO EF (lb/MMBtu | CO PTE (tons/yr) | NOx BACT Limit (lb/MMBtu) | NOx PTE (tons/yr) | PM BACT limit (lb/MMBtu) | PM PTE (tons/yr) | VOC EF (lb/MMBtu) | VOC PTE (tons/yr) | PM10/Direct PM2.5 EF(lb/MMBtu) | PM10/Direct PM2.5 (tons/yr) | SO2 EF (lb/MMBtu) | SO2 PTE (tons/yr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Associated with PA-02 | E-Coat Oven Preheat | 3.700 | Direct | 0.0840 | 1.36 | 0.020 | 0.32 | 0.0075 | 0.12 | 0.0055 | 0.09 | 0.0076 | 0.12 | 0.0006 | 0.01 |
| | E-Coat Oven Zone 1 | 3.700 | Direct | 0.0840 | 1.36 | 0.020 | 0.32 | 0.0075 | 0.12 | 0.0055 | 0.09 | 0.0076 | 0.12 | 0.0006 | 0.01 |
| | E-Coat Oven Zone 2 | 3.700 | Direct | 0.0840 | 1.36 | 0.020 | 0.32 | 0.0075 | 0.12 | 0.0055 | 0.09 | 0.0076 | 0.12 | 0.0006 | 0.01 |
| | E-Coat Oven Zone 4 | 3.700 | Direct | 0.0840 | 1.36 | 0.020 | 0.32 | 0.0075 | 0.12 | 0.0055 | 0.09 | 0.0076 | 0.12 | 0.0006 | 0.01 |
| | E-Coat Oven Zone 5 | 3.700 | Direct | 0.0840 | 1.36 | 0.020 | 0.32 | 0.0075 | 0.12 | 0.0055 | 0.09 | 0.0076 | 0.12 | 0.0006 | 0.01 |
| Associated with PA-05 | Surfacer ASH Preheat | 7.00 | Direct | 0.0840 | 2.58 | 0.080 | 2.45 | 0.0075 | 0.23 | 0.0055 | 0.17 | 0.0076 | 0.23 | 0.0006 | 0.02 |
| | Surfacer ASH Reheat | 0.80 | Direct | 0.0840 | 0.29 | 0.080 | 0.28 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| | Surfacer Flash Off #1 Heater | 3.50 | Indirect | 0.0840 | 1.29 | 0.048 | 0.74 | 0.0075 | 0.11 | 0.0055 | 0.08 | 0.0076 | 0.12 | 0.0006 | 0.01 |
| | Surfacer Flash Off #2 Heater | 2.60 | Indirect | 0.0840 | 0.96 | 0.048 | 0.55 | 0.0075 | 0.09 | 0.0055 | 0.06 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| | Surfacer Oven Zone 1 | 2.60 | Indirect | 0.0840 | 0.96 | 0.048 | 0.55 | 0.0075 | 0.09 | 0.0055 | 0.06 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| | Surfacer Oven Zone 2 | 2.60 | Indirect | 0.0840 | 0.96 | 0.048 | 0.55 | 0.0075 | 0.09 | 0.0055 | 0.06 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| | Surfacer Oven Zone 4 | 1.70 | Direct | 0.0840 | 0.63 | 0.020 | 0.15 | 0.0075 | 0.06 | 0.0055 | 0.04 | 0.0076 | 0.06 | 0.0006 | 0.00 |
| | Surfacer Oven Zone 5 | 2.60 | Direct | 0.0840 | 0.96 | 0.020 | 0.23 | 0.0075 | 0.09 | 0.0055 | 0.06 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| Assc. w/PA-06 | Surfacer Inspection ASH Preheat | 6.40 | Direct | 0.0840 | 2.35 | 0.080 | 2.24 | 0.0075 | 0.21 | 0.0055 | 0.15 | 0.0076 | 0.21 | 0.0006 | 0.02 |
| Associated with PA-07 | Basecoat #1 ASH Preheat | 8.00 | Direct | 0.0840 | 2.94 | 0.080 | 2.80 | 0.0075 | 0.26 | 0.0055 | 0.19 | 0.0076 | 0.27 | 0.0006 | 0.02 |
| | Basecoat #2 ASH Preheat | 8.00 | Direct | 0.0840 | 2.94 | 0.080 | 2.80 | 0.0075 | 0.26 | 0.0055 | 0.19 | 0.0076 | 0.27 | 0.0006 | 0.02 |
| | Clearcoat #1 ASH Preheat | 5.00 | Direct | 0.0840 | 1.84 | 0.080 | 1.75 | 0.0075 | 0.16 | 0.0055 | 0.12 | 0.0076 | 0.17 | 0.0006 | 0.01 |
| | Clearcoat #2 ASH Preheat | 5.00 | Direct | 0.0840 | 1.84 | 0.080 | 1.75 | 0.0075 | 0.16 | 0.0055 | 0.12 | 0.0076 | 0.17 | 0.0006 | 0.01 |
| | Repair ASH Preheat | 11.00 | Direct | 0.0840 | 4.05 | 0.080 | 3.85 | 0.0075 | 0.36 | 0.0055 | 0.26 | 0.0076 | | 0.0006 | 0.03 |
| | Basecoat #1 ASH Reheat | 1.20 | Direct | 0.0840 | 0.44 | 0.080 | 0.42 | 0.0075 | 0.04 | 0.0055 | 0.03 | 0.0076 | 0.04 | 0.0006 | 0.00 |
| | Basecoat #2 ASH Reheat | 1.20 | Direct | 0.0840 | 0.44 | 0.080 | 0.42 | 0.0075 | 0.04 | 0.0055 | 0.03 | 0.0076 | 0.04 | 0.0006 | 0.00 |
| | Clearcoat #1 ASH Reheat | 0.80 | Direct | 0.0840 | 0.29 | 0.080 | 0.28 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| | Clearcoat #2 ASH Reheat | 0.80 | Direct | 0.0840 | 0.29 | 0.080 | 0.28 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| | Repair ASH Reheat | 1.20 | Direct | 0.0840 | 0.44 | 0.080 | 0.42 | 0.0075 | 0.04 | 0.0055 | 0.03 | 0.0076 | 0.04 | 0.0006 | 0.00 |
| | Basecoat Flash Off #1 Heater | 2.60 | Indirect | 0.0840 | 0.96 | 0.048 | 0.55 | 0.0075 | 0.09 | 0.0055 | 0.06 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| | Basecoat Flash Off #2 Heater | 2.60 | Indirect | 0.0840 | 0.96 | 0.048 | 0.55 | 0.0075 | 0.09 | 0.0055 | 0.06 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| | Topcoat Oven Zone 1 | 3.50 | Indirect | 0.0840 | 1.29 | 0.048 | 0.74 | 0.0075 | 0.11 | 0.0055 | 0.08 | 0.0076 | 0.12 | 0.0006 | 0.01 |
| | Topcoat Oven Zone 2 | 2.60 | Indirect | 0.0840 | 0.96 | 0.048 | 0.55 | 0.0075 | 0.09 | 0.0055 | 0.06 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| | Topcoat Oven Zone 3 | 1.70 | Direct | 0.0840 | 0.63 | 0.020 | 0.15 | 0.0075 | 0.06 | 0.0055 | 0.04 | 0.0076 | 0.06 | 0.0006 | 0.00 |
| | Topcoat Oven Zone 5 | 1.70 | Direct | 0.0840 | 0.63 | 0.020 | 0.15 | 0.0075 | 0.06 | 0.0055 | 0.04 | 0.0076 | 0.06 | 0.0006 | 0.00 |
| | Repair Oven | 2.60 | Direct | 0.0840 | 0.96 | 0.020 | 0.23 | 0.0075 | 0.09 | 0.0055 | 0.06 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| Assc. w/PA-20 | Hot water generator | 6.12 | Direct | 0.0840 | 2.25 | 0.040 | 1.07 | 0.0075 | 0.20 | 0.0055 | 0.15 | 0.0076 | 0.20 | 0.0006 | 0.02 |
| | Hot water generator | 6.12 | Direct | 0.0840 | 2.25 | 0.040 | 1.07 | 0.0075 | 0.20 | 0.0055 | 0.15 | 0.0076 | 0.20 | 0.0006 | 0.02 |
| | Hot water generator | 6.12 | Direct | 0.0840 | 2.25 | 0.040 | 1.07 | 0.0075 | 0.20 | 0.0055 | 0.15 | 0.0076 | 0.20 | 0.0006 | 0.02 |
| | Hot water generator | 6.12 | Direct | 0.0840 | 2.25 | 0.040 | 1.07 | 0.0075 | 0.20 | 0.0055 | 0.15 | 0.0076 | 0.20 | 0.0006 | 0.02 |
| PA-21 | Working Area ASH #1 | 20.00 | Direct | 0.0840 | 7.36 | 0.080 | 7.01 | 0.0075 | 0.66 | 0.0055 | 0.48 | 0.0076 | 0.67 | 0.0006 | 0.05 |
| PA-22 | Working Area ASH #2 | 8.00 | Direct | 0.0840 | 2.94 | 0.080 | 2.80 | 0.0075 | 0.26 | 0.0055 | 0.19 | 0.0076 | 0.27 | 0.0006 | 0.02 |
| PA-23 | Working Area ASH #3 | 5.00 | Direct | 0.0840 | 1.84 | 0.080 | 1.75 | 0.0075 | 0.16 | 0.0055 | 0.12 | 0.0076 | 0.17 | 0.0006 | 0.01 |
| PA-25 | HVAC #2 ASH | 13.00 | Direct | 0.0840 | 4.78 | 0.080 | 4.56 | 0.0075 | 0.43 | 0.0055 | 0.31 | 0.0076 | 0.43 | 0.0006 | 0.03 |
| PA-26 | HVAC #3 ASH | 8.00 | Direct | 0.0840 | 2.94 | 0.080 | 2.80 | 0.0075 | 0.26 | 0.0055 | 0.19 | 0.0076 | 0.27 | 0.0006 | 0.02 |
| No Sep ID | Regenerative Thermal Oxidizer for control of Body Paint emissions (PA-02, PA-03, PA-05, PA-07) | 14.00 | Direct | 0.0840 | 5.15 | 0.100 | 6.13 | 0.0075 | 0.46 | 0.0055 | 0.34 | 0.0076 | 0.47 | 0.0006 | 0.04 |
| No Sep ID | Regenerative Thermal Oxidizer for control of Body Paint emissions (PA-02, PA-03, PA-05, PA-07) | 14.00 | Direct | 0.0840 | 5.15 | 0.100 | 6.13 | 0.0075 | 0.46 | 0.0055 | 0.34 | 0.0076 | 0.47 | 0.0006 | 0.04 |
| ***Plastic Process Burners*** | | | | | | | | | | | | | | 0.0006 | 0.00 |
| Associated with PO-02 | Booth #1 ASH Preheat | 17.00 | Direct | 0.0840 | 6.25 | 0.080 | 5.96 | 0.0075 | 0.56 | 0.0055 | 0.41 | 0.0076 | 0.57 | 0.0006 | 0.04 |
| | Booth #1 ASH Reheat | 2.00 | Direct | 0.0840 | 0.74 | 0.080 | 0.70 | 0.0075 | 0.07 | 0.0055 | 0.05 | 0.0076 | 0.07 | 0.0006 | 0.01 |
| | Topcoat Oven Zone 1 | 2.60 | Indirect | 0.0840 | 0.96 | 0.048 | 0.55 | 0.0075 | 0.09 | 0.0055 | 0.06 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| | Topcoat Oven Zone 2 | 2.60 | Indirect | 0.0840 | 0.96 | 0.020 | 0.228 | 0.0075 | 0.09 | 0.0055 | 0.06 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| No Sep ID | Regenerative Thermal Oxidizer for control of Bumper Painting Emissions (PO-02) | 14.00 | Direct | 0.0840 | 5.15 | 0.100 | 6.13 | 0.0075 | 0.46 | 0.0055 | 0.34 | 0.0076 | 0.47 | 0.0006 | 0.04 |
| **Total (Process Burners)** | | **252.5** | | | **92.90** | | **76.08** | | **8.29** | | **6.08** | | **8.04** | | **0.66** |
| **Total PA Indirect Units** | | **27.80** | **MMBtu/hour** | | | | | | | | | | | | |
| **Total FAC-HVAC Indirect Units** | | **30.5** | **MMBtu/hour** | | | | | | | | | | | | |

**Methodology**
PTE, tons/yr = Heart input, MMBtu/hr * EF , lb/MMBtu * 8760 hr/yr * ton/2000 lbs

**IAC 6-2-4(a) Particulate emissions for indirect heating facilities**

Pt = 1.09/(Q^0.26)

Pounds of particulate matter emitted per million Btu (lb/mmBtu) heat inpu
Total Source maximum operating capacity rating in million Btu per hour (mmBtu/hr) heat inpu
*For Q < 10 mmBtu/hr, Pt shall not exceed 0.6*
*For Q => 10,000 mmBtu/hr, Pt shall not exceed 0.1 lb/mmBtu heat input*

| | |
|---|---|
| 58.30 | MMBtu heat input |
| 0.38 | lb/MMBtu of heat inpu |

Appendix A: Emission Calculations
Company Name: Honda Manufacturing of Indiana, LLC
Address, City, IN Zip: 2755 N. Michigan Avenue, Greensburg, IN 47240
Part 70 Operating permit Renewal: T 031-30127-00026
Reviewer: Aida De Guzman
Date Application Received: 18-Jan-2011

| Emission Unit ID | Honda ID | Description | Maximum Heat Input (MMBTU/hr) | Type | CO EF (lb/MMBtu | CO PTE (tons/yr) | NOx BACT Limit (lb/MMBtu) | NOx PTE (tons/yr) | PM BACT limit (lb/MMBtu) | PM PTE (tons/yr) | VOC EF (lb/MMBtu | VOC PTE (tons/yr) | PM10/Direct PM2.5 EF(lb/MMBtu) | PM10/Direct PM2.5 (tons/yr) | SO2 EF (lb/MMBtu) | SO2 PTE (tons/yr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FAC-01 | 290-AHU-01 | QUALITY/ASSEMBLY | 7.776 | Direct | 0.0840 | 2.86 | 0.080 | 2.72 | 0.0075 | 0.26 | 0.0055 | 0.19 | 0.0076 | 0.26 | 0.0006 | 0.02 |
| FAC-02 | 290-AHU-03 | ASSEMBLY | 4.147 | Direct | 0.0840 | 1.53 | 0.080 | 1.45 | 0.0075 | 0.14 | 0.0055 | 0.10 | 0.0076 | 0.14 | 0.0006 | 0.01 |
| FAC-03 | 290-AHU-04 | ASSEMBLY | 4.147 | Direct | 0.0840 | 1.53 | 0.080 | 1.45 | 0.0075 | 0.14 | 0.0055 | 0.10 | 0.0076 | 0.14 | 0.0006 | 0.01 |
| FAC-04 | 290-AHU-05 | ASSEMBLY | 4.147 | Direct | 0.0840 | 1.53 | 0.080 | 1.45 | 0.0075 | 0.14 | 0.0055 | 0.10 | 0.0076 | 0.14 | 0.0006 | 0.01 |
| FAC-05 | 290-AHU-06 | ASSEMBLY | 4.147 | Direct | 0.0840 | 1.53 | 0.080 | 1.45 | 0.0075 | 0.14 | 0.0055 | 0.10 | 0.0076 | 0.14 | 0.0006 | 0.01 |
| FAC-06 | 290-AHU-07 | ASSEMBLY | 4.147 | Direct | 0.0840 | 1.53 | 0.080 | 1.45 | 0.0075 | 0.14 | 0.0055 | 0.10 | 0.0076 | 0.14 | 0.0006 | 0.01 |
| FAC-07 | 290-AHU-08 | ASSEMBLY | 4.147 | Direct | 0.0840 | 1.53 | 0.080 | 1.45 | 0.0075 | 0.14 | 0.0055 | 0.10 | 0.0076 | 0.14 | 0.0006 | 0.01 |
| **sub-total** | | | **32.658** | | | | | | | | 0.0055 | | | | | |
| FAC-11 | 290-AHU-02 | MAT SERVICE SOUTH DOCKS | 2.592 | Direct | 0.0840 | 0.95 | 0.080 | 0.91 | 0.0075 | 0.09 | 0.0055 | 0.06 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| FAC-12 | 290-AHU-13 | MAT SERVICE NORTH DOCKS | 7.776 | Direct | 0.0840 | 2.86 | 0.080 | 2.72 | 0.0075 | 0.26 | 0.0055 | 0.19 | 0.0076 | 0.26 | 0.0006 | 0.02 |
| FAC-13 | 290-AHU-09 | WELD | 4.147 | Direct | 0.0840 | 1.53 | 0.080 | 1.45 | 0.0075 | 0.14 | 0.0055 | 0.10 | 0.0076 | 0.14 | 0.0006 | 0.01 |
| FAC-14 | 290-AHU-10 | WELD | 4.147 | Direct | 0.0840 | 1.53 | 0.080 | 1.45 | 0.0075 | 0.14 | 0.0055 | 0.10 | 0.0076 | 0.14 | 0.0006 | 0.01 |
| FAC-15 | 290-AHU-11 | WELD | 4.147 | Direct | 0.0840 | 1.53 | 0.080 | 1.45 | 0.0075 | 0.14 | 0.0055 | 0.10 | 0.0076 | 0.14 | 0.0006 | 0.01 |
| FAC-16 | 290-AHU-12 | MAT SERVICE NORTH DOCKS | 7.776 | Direct | 0.0840 | 2.86 | 0.080 | 2.72 | 0.0075 | 0.26 | 0.0055 | 0.19 | 0.0076 | 0.26 | 0.0006 | 0.02 |
| FAC-17 | 290-AHU-15 | STAMPING | 2.765 | Direct | 0.0840 | 1.02 | 0.080 | 0.97 | 0.0075 | 0.09 | 0.0055 | 0.07 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| FAC-18 | 290-AHU-16 | STAMPING | 2.765 | Direct | 0.0840 | 1.02 | 0.080 | 0.97 | 0.0075 | 0.09 | 0.0055 | 0.07 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| FAC-19 | 290-AHU-14 | PLASTICS | 2.765 | Direct | 0.0840 | 1.02 | 0.080 | 0.97 | 0.0075 | 0.09 | 0.0055 | 0.07 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| FAC-20 | 290-HVAC-01 | FAC HVAC | 0.078 | Indirect | 0.0840 | 0.03 | 0.100 | 0.03 | 0.0075 | 0.00 | 0.0055 | 0.00 | 0.0076 | 0.00 | 0.0006 | 0.00 |
| **sub-total** | | | **38.958** | | | | | | | | | | | | | |
| FAC-26 | 290-HVAC-02 | Prod Office Area C | 0.620 | Indirect | 0.0840 | 0.23 | 0.100 | 0.27 | 0.0075 | 0.02 | 0.0055 | 0.01 | 0.0076 | 0.02 | 0.0006 | 0.00 |
| FAC-27 | 810-HVAC-07 | Welcome Center Locker Rooms | 0.984 | Indirect | 0.0840 | 0.36 | 0.100 | 0.43 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| FAC-28 | 810-HVAC-08 | Welcome Center Area | 0.640 | Indirect | 0.0840 | 0.24 | 0.100 | 0.28 | 0.0075 | 0.02 | 0.0055 | 0.02 | 0.0076 | 0.02 | 0.0006 | 0.00 |
| FAC-29 | 810-HVAC-01 | Adm Bldg.- Ground HVAC | 0.705 | Indirect | 0.0840 | 0.26 | 0.100 | 0.31 | 0.0075 | 0.02 | 0.0055 | 0.02 | 0.0076 | 0.02 | 0.0006 | 0.00 |
| FAC-30 | 810-HVAC-02 | Adm Bldg. - Second Floor | 1.359 | Indirect | 0.0840 | 0.50 | 0.100 | 0.60 | 0.0075 | 0.04 | 0.0055 | 0.03 | 0.0076 | 0.05 | 0.0006 | 0.00 |
| FAC-32 | 810-HVAC-05 | Kitchen HVAC | 0.831 | Indirect | 0.0840 | 0.31 | 0.100 | 0.36 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| **sub-total** | | | **5.139** | | | | | | | | | | | | | |
| FAC-35 | 130-AHU-01 | WWT HVAC - General | 1.650 | Direct | 0.0840 | 0.61 | 0.080 | 0.58 | 0.0075 | 0.05 | 0.0055 | 0.04 | 0.0076 | 0.05 | 0.0006 | 0.00 |
| FAC-36 | 130-AHU-02 | WWT HVAC - Office | 0.137 | Indirect | 0.0840 | 0.05 | 0.100 | 0.06 | 0.0075 | 0.00 | 0.0055 | 0.00 | 0.0076 | 0.00 | 0.0006 | 0.00 |
| FAC-37 | 811-HVAC-01 | Distribution Center HVAC | 0.373 | Indirect | propane | 0.13 | 0.100 | 0.16 | 0.0075 | 0.01 | propane | 0.02 | propane | 0.02 | propane | 0.00 |
| **sub-total** | | | **2.160** | | | | | | | | | | | | | |
| FAC-39 | 810-HVU-01 | B115 Emergency Response | 0.116 | Indirect | 0.0840 | 0.04 | 0.100 | 0.05 | 0.0075 | 0.00 | 0.0055 | 0.00 | 0.0076 | 0.00 | 0.0006 | 0.00 |
| FAC-40 | 810-HVAC-04 | Fire Living Quarters | 0.026 | Indirect | 0.0840 | 0.01 | 0.100 | 0.01 | 0.0075 | 0.00 | 0.0055 | 0.00 | 0.0076 | 0.00 | 0.0006 | 0.00 |
| FAC-41 | AH-41 | Railroad Bldg. HVAC | 0.300 | Indirect | propane | 0.11 | 0.100 | 0.13 | 0.0075 | 0.01 | propane | 0.01 | propane | 0.01 | propane | 0.00 |
| **sub-total** | | | **0.442** | | | | | | | | | | | | | |
| FAC-43 | AH-43 | CC Center HVAC | 0.850 | Indirect | 0.0840 | 0.31 | 0.100 | 0.37 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| FAC-44 | AH-44 | CC Center HVAC | 0.850 | Indirect | 0.0840 | 0.31 | 0.100 | 0.37 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| FAC-45 | AH-45 | CC Center HVAC | 0.850 | Indirect | 0.0840 | 0.31 | 0.100 | 0.37 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| FAC-46 | AH-46 | CC Center HVAC | 0.850 | Indirect | 0.0840 | 0.31 | 0.100 | 0.37 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| FAC-47 | AH-47 | CC Center HVAC | 0.850 | Indirect | 0.0840 | 0.31 | 0.100 | 0.37 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| FAC-48 | AH-48 | CC Center HVAC | 0.850 | Indirect | 0.0840 | 0.31 | 0.100 | 0.37 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| FAC-49 | AH-49 | CC Center HVAC | 0.850 | Indirect | 0.0840 | 0.31 | 0.100 | 0.37 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| FAC-50 | AH-50 | CC Center HVAC | 0.850 | Indirect | 0.0840 | 0.31 | 0.100 | 0.37 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| FAC-51 | ,200-AHU-09 | CC Center Office HVAC | 0.250 | Indirect | 0.0840 | 0.09 | 0.100 | 0.11 | 0.0075 | 0.01 | 0.0055 | 0.01 | 0.0076 | 0.01 | 0.0006 | 0.00 |
| FAC-52 | ,200-AHU-10 | CC Center Locker Room | 0.450 | Indirect | 0.0840 | 0.17 | 0.100 | 0.20 | 0.0075 | 0.01 | 0.0055 | 0.01 | 0.0076 | 0.01 | 0.0006 | 0.00 |
| FAC-53-FAC-72 | | Unit Heaters (20 @ 0.13 MMBTU/each | 2.600 | Indirect | 0.0840 | 0.96 | 0.100 | 1.14 | 0.0075 | 0.09 | 0.0055 | 0.06 | 0.0076 | 0.09 | 0.0006 | 0.01 |
| FAC-73 - FAC-80 | | Unit Heaters (8 @ 0.1 MMBTU/each | 0.800 | Indirect | 0.0840 | 0.29 | 0.100 | 0.35 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| **sub-total** | | | **10.900** | | | | | | | | | | | | | 0.00 |
| FAC-116 | 290-AHU-17 | TRAINING CENTER | 1.382 | Direct | 0.0840 | 0.51 | 0.080 | 0.48 | 0.0075 | 0.05 | 0.0055 | 0.03 | 0.0076 | 0.05 | 0.0006 | 0.00 |
| FAC-117 - FAC-130 | | Unit Heaters (14 @ 0.13 MMBTU/each | 1.820 | Indirect | 0.0840 | 0.67 | 0.100 | 0.80 | 0.0075 | 0.06 | 0.0055 | 0.04 | 0.0076 | 0.06 | 0.0006 | 0.00 |
| FAC-131 | 155-HVAC-01 | Main Substation HVAC | 0.125 | Indirect | 0.0840 | 0.05 | 0.100 | 0.05 | 0.0075 | 0.00 | 0.0055 | 0.00 | 0.0076 | 0.00 | 0.0006 | 0.00 |
| FAC-132 | 155-HVAC-02 | Main Substation HVAC | 0.125 | Indirect | 0.0840 | 0.05 | 0.100 | 0.05 | 0.0075 | 0.00 | 0.0055 | 0.00 | 0.0076 | 0.00 | 0.0006 | 0.00 |
| FAC-133 - FAC-139 | | Unit Heaters (7 @ 0.13 MMBTU/each | 0.910 | Indirect | 0.0840 | 0.33 | 0.100 | 0.40 | 0.0075 | 0.03 | 0.0055 | 0.02 | 0.0076 | 0.03 | 0.0006 | 0.00 |
| FAC-140 | 812-HVAC-01 | Credit Union HVAC | 0.500 | Indirect | propane | 0.18 | 0.100 | 0.22 | 0.0075 | 0.02 | propane | 0.02 | propane | 0.02 | propane | 0.00 |
| **sub-total** | | | **4.862** | | | | | | | | | | | | | |
| FAC-146 | CC bldg. | CC Building | 0.250 | Indirect | 0.0840 | 0.09 | 0.100 | 0.11 | 0.0075 | 0.01 | 0.0055 | 0.01 | 0.0076 | 0.01 | 0.0006 | 0.00 |
| FAC-147 | CC bldg. | CC Building | 0.250 | Indirect | 0.0840 | 0.09 | 0.100 | 0.11 | 0.0075 | 0.01 | 0.0055 | 0.01 | 0.0076 | 0.01 | 0.0006 | 0.00 |
| FAC-148 - FAC-150 | CC Bldg. Unit Heaters | Unit Heaters (3 @ 0.10 MMBTU/each) | 0.300 | Indirect | 0.0840 | 0.11 | 0.100 | 0.13 | 0.0075 | 0.01 | 0.0055 | 0.01 | 0.0076 | 0.01 | 0.0006 | 0.00 |
| FAC-151 - FAC-169 | CC Bldg. Radiant Heaters | Radiant Heaters (19 @ 0.2 MMBTU/each) | 3.800 | Indirect | 0.0840 | 1.40 | 0.100 | 1.66 | 0.0075 | 0.12 | 0.0055 | 0.09 | 0.0076 | 0.13 | 0.0006 | 0.01 |
| FAC 110 | café water heater | | 0.500 | Indirect | 0.0840 | 0.18 | 0.100 | 0.22 | 0.0075 | 0.02 | 0.0055 | 0.01 | 0.0076 | 0.02 | 0.0006 | 0.00 |
| **sub-total** | | | **4.600** | | | | | | | | | | | | | |
| **Total Heat Input, MMBtu/hr** | | | **99.7** | | | **36.9** | | **37.4** | | **3.3** | | **2.4** | | **3.3** | | **0.3** |
| **Total Indirect Heating units** | | | **30.5** | MMBtu/hr | | | | | | | | | | | | |

PROPOANE UNITS:

| FAC -37 Throughput (kgal/yr) | FAC -41 Throughput (kgal/yr) | FAC -140 Throughput (kgal/yr) | Emission Factor in lb/kgal | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | PM* | PM10* | direct PM2.5* | SO2 | NOx | VOC | CO |
| 35.71 | 28.72 | 47.87 | 0.2 | 0.7 | 0.7 | 0.05 | 13 **see below | 1.0 | 7.50 |

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

Methodology:
PTE, tons/yr = Heart input, MMBtu/hr * EF , lb/MMBtu * 8760 hr/yr * ton/2000 lbs

**Appendix A: Emission Calculations**
**Natural Gas Combustion Only**
**MMBTU/HR >100**
**Utility Boiler**
**Appendix A: Emission Calculations**
**Company Name: Honda Manufacturing of Indiana, LLC**
**Address, City, IN Zip: 2755 N. Michigan Avenue, Greensburg, IN 47240**
**Part 70 Operating permit Renewal: T 031-30127-00026**
**Reviewer: Aida De Guzman**
**Date Application Received: 18-Jan-2011**

| N.G. Heat Input Capacity MMBtu/hr | N. G. Potential Throughput MMCF/yr | Propane Heat Input Capacity MMBtu/hr | Propane Potential Throughput Kgals/yr |
|---|---|---|---|
| 351.0 | 3074.7 | 1.17 | 112.30 |

98.5 MMBtu/hr total FAC-HVAC units
252.5 MMBtu/hr total paint booth burners

FAC-37 @ 0.373 Mbtu/hr
FAC-41 @ 0.30 MMBtu/hr
FAC-140 @ 0.50 MMBtu/hr

| | HAPs - Organics | | | | |
|---|---|---|---|---|---|
| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene |
| Emission Factor in lb/MMcf | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 |
| Potential Emission in tons/yr | 0.0032 | 0.0018 | 0.1153 | 2.7672 | 0.0052 |

| | HAPs - Metals | | | | |
|---|---|---|---|---|---|
| | Lead | Cadmium | Chromium | Manganese | Nickel |
| Emission Factor in lb/MMcf | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 |
| Potential Emission in tons/yr | 0.0008 | 0.0017 | 0.0022 | 0.0006 | 0.0032 |

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

| | |
|---|---|
| Total HAPs | 2.9012 |
| Worst Single HAP | 2.7672 |

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04
(AP-42 Supplement D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

| | Greenhouse Gas From N.G. | | | Greenhouse Gas From Propane | | |
|---|---|---|---|---|---|---|
| | CO2 (lb/MMCF) | CH4 (lb/MMCF) | N2O (lb/MMCF) | CO2 (lb/kgal) | CH4 (lb/kgal) | N2O (lb/kgal) |
| Emission Factor in lb/MMcf | 120,000 | 2.3 | 2.2 | 12,500 | 0.2 | 0.9 |
| Potential Emission in tons/yr | 184,480 | 3.5 | 3.4 | 702 | 0.01 | 0.05 |
| Summed Potential Emissions in tons/yr | 184,487 | | | 702 | | |
| CO2e Total in tons/yr | 185,603 | | | 718 | | |

**Methodology**
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emission Calculations**
**Reciprocating Internal Combustion Engines - Diesel Fuel**
**Output Rating (<=600 HP)**
**Maximum Input Rate (<=4.2 MMBtu/hr)**

**Company Name:** **Honda Manufacturing of Indiana, LLC**
**Address City IN Zip:** **2755 N. Michigan Ave., Greensburg, IN 47240**
**Part 70 Operating Permit Renewal No.:** **031-30127**
**Plt ID:** **031-00026**
**Reviewer:** **Aida DeGuzman**
**Date:** **18-Jan-2011**

Diesel Fired Emergency Generators and Fire Pumps

| | HP Output Rating |
|---|---|
| FAC-81, Generator | 133 |
| FAC-82, Fire Pump | 183 |
| FAC-83, Fire Pump | 183 |
| FAC-84, Generator | 757 |
| FAC-85, Generator | 757 |
| FAC-86, Generator | 158 |
| FAC-89, Generator | 133 |
| FAC-115, Generator | 133 |
| Total Output Horsepower Rating (hp) | 2437.0 |
| Maximum Hours Operated per Year | 500 |
| Potential Throughput (hp-hr/yr) | 1,218,500 |

| | Pollutant | | | | | | |
|---|---|---|---|---|---|---|---|
| | PM* | PM10* | direct PM2.5* | SO2 | NOx | VOC | CO |
| Emission Factor in lb/hp-hr | 0.0022 | 0.0022 | 0.0022 | 0.0021 | 0.0310 | 0.0025 | 0.0067 |
| Potential Emission in tons/yr | 1.34 | 1.34 | 1.34 | 1.25 | 18.89 | 1.53 | 4.07 |

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

**Hazardous Air Pollutants (HAPs)**

| | Pollutant | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Benzene | Toluene | Xylene | 1,3-Butadiene | Formaldehyde | Acetaldehyde | Acrolein | Total PAH HAPs*** |
| Emission Factor in lb/hp-hr**** | 6.53E-06 | 2.86E-06 | 2.00E-06 | 2.74E-07 | 8.26E-06 | 5.37E-06 | 6.48E-07 | 1.18E-06 |
| Potential Emission in tons/yr | 3.98E-03 | 1.74E-03 | 1.22E-03 | 1.67E-04 | 5.03E-03 | 3.27E-03 | 3.94E-04 | 7.16E-04 |

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

| | |
|---|---|
| **Potential Emission of Total HAPs (tons/yr)** | **0.02** |

**Green House Gas Emissions (GHG)**

| | Pollutant | | |
|---|---|---|---|
| | CO2 | CH4 | N2O |
| Emission Factor in lb/hp-hr | 1.15E+00 | 4.63E-05 | 9.26E-06 |
| Potential Emission in tons/yr | 7.01E+02 | 2.82E-02 | 5.64E-03 |

| | |
|---|---|
| **Summed Potential Emissions in tons/yr** | **700.67** |
| **CO2e Total in tons/yr** | **702.98** |

**Methodology**
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Potential Throughput (hp-hr/yr) = [Output Horsepower Rating (hp)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (hp-hr/yr)] * [Emission Factor (lb/hp-hr)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emission Calculations**
**Reciprocating Internal Combustion Engines - Diesel Fuel**
**Output Rating (<=600 HP)**
**Maximum Input Rate (<=4.2 MMBtu/hr)**

**Company Name:** Honda Manufacturing of Indiana, LLC
**Address City IN Zip:** 2755 N. Michigan Ave., Greensburg, IN 47240
**Permit Number:** 031-30127
**Plt ID:** 031-00026
**Reviewer:** Aida DeGuzman
**Date:** 18-Jan-2011

**Gasoline Fired Emergency Generators:**

| | | |
|---|---|---|
| **FAC-145 Generator** | 5.50 | HP |
| **FAC-175 Generator** | 5.50 | HP |

| | |
|---|---|
| Total Output Horsepower Rating (hp) | 11.0 |
| Maximum Hours Operated per Year | 500 |
| Potential Throughput (hp-hr/yr) | 5,500 |

| | Pollutant | | | | | | |
|---|---|---|---|---|---|---|---|
| | PM* | PM10* | direct PM2.5* | SO2 | NOx | VOC | CO |
| Emission Factor in lb/hp-hr | 0.0022 | 0.0022 | 0.0022 | 0.0021 | 0.0310 | 0.0025 | 0.0067 |
| Potential Emission in tons/yr | 0.01 | 0.01 | 0.01 | 0.01 | 0.09 | 0.01 | 0.02 |

*PM and PM2.5

**Hazardous Air Pollutants (HAPs)**

| | Pollutant | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Benzene | Toluene | Xylene | 1,3-Butadiene | Formaldehyde | Acetaldehyde | Acrolein | Total PAH HAPs*** |
| Emission Factor in lb/hp-hr**** | 6.53E-06 | 2.86E-06 | 2.00E-06 | 2.74E-07 | 8.26E-06 | 5.37E-06 | 6.48E-07 | 1.18E-06 |
| Potential Emission in tons/yr | 1.80E-05 | 7.87E-06 | 5.49E-06 | 7.53E-07 | 2.27E-05 | 1.48E-05 | 1.78E-06 | 3.23E-06 |

***PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)
****Emission factors in lb/hp-hr were calculated using emission factors in lb/MMBtu and a brake specific fuel consumption of 7,000 Btu / hp-hr (AP-42 Table 3.3-1).

| | |
|---|---|
| **Potential Emission of Total HAPs (tons/yr)** | **7.46E-05** |

**Green House Gas Emissions (GHG)**

| | Pollutant | | |
|---|---|---|---|
| | CO2 | CH4 | N2O |
| Emission Factor in lb/hp-hr | 1.15E+00 | 4.63E-05 | 9.26E-06 |
| Potential Emission in tons/yr | 3.16E+00 | 1.27E-04 | 2.55E-05 |

| | |
|---|---|
| **Summed Potential Emissions in tons/yr** | **3.16E+00** |
| **CO2e Total in tons/yr** | **3.17E+00** |

**Methodology**
Emission Factors are from AP42 (Supplement B 10/96), Tables 3.3-1 and 3.3-2
CH4 and N2O Emission Factor from 40 CFR 98 Subpart C Table C-2.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Potential Throughput (MMBtu/yr) = [Heat Input Capacity (MMBtu/hr)] * [Maximum Hours Operated per Year]
Potential Emission (tons/yr) = [Potential Throughput (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2,000 lb/ton]
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emission Calculatio
Company Name: Honda Manufacturing of Indiana, LLC
Address, City, IN Zip: 2755 N. Michigan Avenue, Greensburg, IN 47240
Part 70 Operating permit Renewal: T 031-30127-00026
Reviewer: Aida De Guzman
Date Application Received: 18-Jan-2011

## Weld Sealer Process WE-01

| VOC Emission Calculations | | | | | | | Potential Emissions @ 250,000 units/year | | Individual HAP Potential Emissions @ 250,000 units/year (tons/year) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Production | Usage | | Maximum Annual Usage | Density of Emitted VOC | VOC | Total HAP | Xylene 1330-20-7 | Toluene 108-88-3 | Ethylbenzene 100-41-4 | Diethanolamine 111-42-2 |
| Chemical | Use | (units/yr) | (lb/unit) | (gal/unit) | (gal/yr) | (lb VOC/gal) | (tons/yr) | (tons/yr) | (%wt) | (tons/yr) | (%wt) | (%wt) |
| **Weld Sealers/Adhesives** | | | | | | | | | | | | |
| Betabrace 85078 H Reinforcing Composite | Weld Sealer/adhesive | 250,000 | 0.08 | 0.012 | 3035.55 | 0.04 | 0.1 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 |
| Betaguard 61133 Sealer | Weld Sealer/adhesive | 250,000 | 0.07 | 0.006 | 1429.74 | 0.12 | 0.1 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 |
| Betaguard 62790 Sealer | Weld Sealer/adhesive | 250,000 | 0.28 | 0.022 | 5426.36 | 0.06 | 0.2 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 |
| Betaguard 66631 Sealer | Weld Sealer/adhesive | 250,000 | 2.09 | 0.182 | 45434.78 | 0.08 | 1.8 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 |
| Betamate 66829A Mastic | Weld Sealer/adhesive | 250,000 | 0.77 | 0.069 | 17187.50 | 0.08 | 0.7 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 |
| Betamate 73305 Structural Adhesive | Weld Sealer/adhesive | 250,000 | 0.28 | 0.023 | 5847.95 | 0.02 | 0.1 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sunnex SH-300 | Weld Sealer/adhesive | 250,000 | 0.044 | 0.004 | 946.64 | 0.04 | 0.0 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | | | |
| **Cleaning Solvents** | | | | | | | | | | | | |
| Weld Sealer Wipe | Clean-up of weld sealer/adhesive | 250,000 | 0.0016 | 0.0002 | 47.62 | 0.08 | 0.0 | 0.006 | 0.00 | 0.00 | 0.00 | 0.01 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **Miscellaneous Materials** | | | | | | | | | | | | |
| Bluecoat 5000 Anti-Spatter | | 250,000 | 0.0120 | 0.001 | 338.98 | 0.12 | 0.0 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 |
| Glycerin/water mix | | 250,000 | 0.1300 | 0.013 | 3286.81 | 0.60 | 1.0 | 0.000 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **Total** | | | | | | | 3.91 | 0.01 | 0.000 | 0.000 | 0.000 | 0.01 |

**Material Information**

| Chemicals | Density (lb/gal) | Solids (%wt) | Water (%wt) | Volatile (%wt) | VOC (lb/gal) | Total HAP[1] (%wt) | Xylene 1330-20-7 (%wt) | Toluene 108-88-3 (%wt) | Ethylbenzene 100-41-4 (%wt) | Diethanolamine 111-42-2 (%wt) |
|---|---|---|---|---|---|---|---|---|---|---|
| Betabrace 85078 H Reinforcing Composite | 6.59 | 99.95% | 0.00% | 0.05% | 0.04 | 0.00% | | | | |
| Betaguard 61133 Sealer | 12.24 | 99.02% | 0.00% | 0.98% | 0.12 | 0.00% | | | | |
| Betaguard 62790 Sealer | 12.90 | 99.53% | 0.00% | 0.47% | 0.06 | 0.00% | | | | |
| Betaguard 66631 Sealer | 11.50 | 99.30% | 0.00% | 0.70% | 0.08 | 0.00% | | | | |
| Betamate 66829A Mastic | 11.20 | 99.29% | 0.00% | 0.71% | 0.08 | 0.00% | | | | |
| Betamate 73305 Structural Adhesive | 11.97 | 99.85% | 0.00% | 0.15% | 0.02 | 0.00% | | | | |
| Sunnex SH-300 | 11.62 | 99.70% | 0.00% | 0.30% | 0.04 | 0.00% | | | | |
| Weld Sealer Wipe (Ashland 6-75-806D Honda Weldwipe) | 8.40 | 0.00% | 40.00% | 100.0% | 5.17 | 2.90% | | | | 2.9% |
| Bluecoat 5000 Anti-Spatter | 8.85 | 10.25% | 88.40% | 1.4% | 0.12 | 0.00% | | | | |
| Glycerin/water mix | 9.89 | 0.00% | 28.00% | 100.0% | 0.60 | 0.00% | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

**Methodology**
VOC Actual Emissions @ 250,000 units/yr = Maximum Annual Usage (gal/yr) * Density of Emitted VOC (lb VOC/gal) / 2000 (lb/ton)
Individual HAP Actual Emissions @ 250,000 units/yr = Production (units/yr) * Usage (lb/unit) * Individual HAP (% wt) / 2000 (lb/ton)
HAP Actual Emissions @ 250,000 units/yr = Production (units/yr) * Usage (lb/unit) * Total HAP (% wt) / 2000 (lb/ton)

Notes:
1. All HAP as defined by the MACT regulations is included (i.e. Individual HAP's >1% by weight if non-carcinogenic and >0.1% by weight if carcinogenic)

Appendix A: Emission Calculations
Company Name: Honda Manufacturing of Indiana, LLC
Address, City, IN Zip: 2755 N. Michigan Avenue, Greensburg, IN 47240
Part 70 Operating permit Renewal: T 031-30127-00026
Reviewer: Aida De Guzman
Date Application Received: 18-Jan-2011

## Body Welding and Finishing WE-02

**Resistance (Spot) Welding Emissions**

| Resistance (spot) Welding Operations | | | | | Potential to Emit | |
|---|---|---|---|---|---|---|
| **Weld Off Production** | **Units** (units/hr) | **Spot Welds per Unit** (#/Unit) | **Area of Weld and Vaporized Area** ($ft^2$/#) | **Amount Mill Oil per Weld Area** (lb VOC/$ft^2$) | **Total VOC Emissions** (lb VOC/hr) | **Total VOC Emissions** (tons VOC/yr) |
| PRODUCTION | 80 | 3,200 | 0.0035 | 0.000605 | 0.542 | 2.374 |
| **Totals (tons)** | | | | | 0.542 | 2.374 |

**Methodology**
Total VOC Emissions (lbs VOC/yr) = Units (units/hr) * Spot Welds per Unit (#/Unit) * Area of Weld and Vaporized Area ($ft^2$/#) * Amount Mill Oil per Weld Area (lb VOC/$ft^2$)
Total VOC Emissions (tons VOC/yr) = Total VOC Emissions (lbs VOC/yr) * 8760 (hrs/yr) / 2000 (lbs/ton)

### Mig Weld Emissions

| | | |
|---|---|---|
| **Weld Wire (lbs/unit)** | 0.295 | |
| **Units/hour** | 80 | |
| **Emission Factor** | 0.01 | lbs PM emitted/lb of MIG Wire |

| Mig Weld Particulate Emissions | Potential to Emit (uncontrolled) | | Potential to Emit (controlled) | |
|---|---|---|---|---|
| **Source** | **Hourly Emissions (lb/hr)** | **Annual Emissions (tons/year)** | **Hourly Emissions (lb/hr)** | **Annual Emissions (tons/year)** |
| | | | | |
| MIG Welding | 0.236 | 1.034 | 0.002 | 0.010 |

**Methodology**
Hourly Emissions (lb/hr) (uncontrolled) = Units/hr * Emission Factor (lb PM emitted/lb of MIG Wire)
Annual Emissions (ton/yr) (uncontrolled) = Hourly Emissions (lb/hr) (uncontrolled) * 8760 (hrs/yr) / 2000 (lb/ton)
Hourly Emissions (lb/hr) (controlled) = Hourly Emissions (lb/hr) (uncontrolled) * (1-control efficiency)
Annual Emissions (lb/hr) (controlled) = Annual Emissions (lb/hr) (uncontrolled) * (1-control efficiency)

**Notes:**
1. Weld Emission Factor is from American Welding Co. and professional experience.
2. Assumed control efficiency of 99% for cartridge particulate removal system with 100% capture efficiency.

## Weld Rust Prevention WE-03

### Rust Prevention (White body panels and parts)

| Rust Prevention | | | Potential to Emit |
|---|---|---|---|
| | **Units** (Units/hr) | **Maximum Daily Emission Rate** (lb) | **Total VOC Emissions** (tons VOC/yr) |
| Protective coating may be applied prior to extended shutdown periods (July/December) | 80 | 15 | 2.738 |
| **Totals (tons)** | | | 2.738 |

**Methodology**
Annual Emissions (ton/yr) = Maximum Daily Emission Rate (lbs) * 8760 (hrs/yr) / 2000 (lbs/ton)

Appendix A: Emission Calculations
Company Name: Honda Manufacturing of Indiana, LLC
Address, City, IN Zip: 2755 N. Michigan Avenue, Greensburg, IN 47240
Part 70 Operating permit Renewal: T 031-30127-00026
Reviewer: Aida De Guzman
Date Application Received: 18-Jan-2011

## Cooling Towers

**'s - Potential Emissions**

| EU ID | EU Description | Circulation Rate (gpm) | Drift Loss (%) | Maximum Operating Schedule (hrs/yr) | TDS Content (ppm) | TDS Content lb/gal | $PM_{10}$ Emissions[7] (tpy) |
|---|---|---|---|---|---|---|---|
| CT-01 | Chillers Cooling Tower | 20,000 | 0.002 | 8,760 | 2,560 | 0.021 | 2.23 |
| CT-02 | Air Compressor Cooling Tower | 2,370 | 0.002 | 8,760 | 2,560 | 0.021 | 0.26 |
| CT-03 | ST/PO Tower Cooling Tower | 877 | 0.002 | 8,760 | 2,560 | 0.021 | 0.10 |
| | | | | | | **TOTAL** | **2.60** |

1 ppm = 8.30E-06 lb/gal
PM/PM10/PM2.5 PTE, tons/yr = circulation rate, gal/min * 60 min/hr * 8760 hrs/yr *TDS, lbs/gal * drift loss, %/100 * ton/2000 lbs

Appendix A: Emission Calculations
Company Name: Honda Manufacturing of Indiana, LLC
Address, City, IN Zip: 2755 N. Michigan Avenue, Greensburg, IN 47240
Part 70 Operating permit Renewal: T 031-30127-00026
Reviewer: Aida De Guzman
Date Application Received: 18-Jan-2011

**Storage Tank Emissions Summary**

| Tank Description | Unit ID | Volume (gallons) | Annual Throughput (gallons/yr) | Potential VOC Emissions (lbs/yr) | Potential VOC Emissions (ton/yr) | Total HAP (% wt.) | HAP Emission (ton/yr) |
|---|---|---|---|---|---|---|---|
| Virgin Purge - Paint | PA-18 | 7000 | 35000 | 20.53 | 0.01 | 100.00% | 0.01 |
| Spent Purge - Paint | PA-19 | 7000 | 45000 | 237.17 | 0.12 | 100.00% | 0.12 |
| Virgin Purge - Plastics | PO-09 | 7000 | 59688 | 62.84 | 0.03 | 100.00% | 0.03 |
| Spent Purge - Plastics | PO-10 | 7000 | 59688 | 365.29 | 0.18 | 100.00% | 0.18 |
| Gasoline Storage | FAC-99 | 19800 | 1125000 | 9573.07 | 4.79 | 42.00% | 2.01 |
| Premium Gasoline Storage | FAC-101 | 19800 | 1125000 | 9573.07 | 4.79 | 42.00% | 2.01 |
| WW Fluid | FAC-102 | 4900 | 34000 | 85.45 | 0.04 | 100.00% | 0.04 |
| **Totals:** | | | | | **9.96** | | **4.41** |

**Methodology**
Potential Emissions calculated using EPA TANKS 4.0
PA-19 and PO-10, TANKs calculation was performed with the turnover set at 365 to simulate the frequent unloading of the the spent purge.
HAP Emission (ton/yr) = Potential Emissions (ton/yr) * Total HAP (% wt.)

| Tank Description | Unit ID | Volume (gallons) | Annual Throughput (gallons/yr) | VOC Potential Emissions (ton/yr) |
|---|---|---|---|---|
| Brake Fluid | FAC-98 | 6,600 | 60,000 | 0.001 |
| Power Steering Fluid | FAC-204 | 8,000 | 73,000 | 0.001 |
| Manual Trans. Fluid | FAC-105 | 4,000 | 21,000 | 0.0003 |
| Automatic Trans. Fluid | FAC-96 | 15,000 | 250,000 | 0.003 |
| Antifreeze Fluid | FAC-103 | 15,000 | 300,000 | 0.004 |
| Diesel Fuel (total tankage) | varies | 9,100 | 208,400 | 0.003 |
| **Total:** | | | | **0.012** |

**Methodology**

1. Emission factor of 0.027 lbs/1000 gallon throughput was from G. Demis of the Ohio EPA. This emission factor is the SCC emission factor for transfer operations from diesel storage tanks. It is assumed that the same emission factor applies to other low volatile fluids.

Appendix A: Emission Calculations
Company Name: Honda Manufacturing of Indiana, LLC
Address, City, IN Zip: 2755 N. Michigan Avenue, Greensburg, IN 47240
Part 70 Operating permit Renewal: T 031-30127-00026
Reviewer: Aida De Guzman
Date Application Received: 18-Jan-2011

## Gasoline Dispensing Losses AF-02

**Emission Unit Description:** **Gasoline Dispensing - Assembly**

| VOC Emission Calculations - Gasoline<br>Source | SCC Code | Emission Factor (lb/1000 gal) | Maximum Annual Gasoline Usage (1000 gal) | Maximum VOC Emissions (ton/yr) | Total HAP (%wt) | Maximum HAP Emissions (ton/yr) |
|---|---|---|---|---|---|---|
| Balanced Submerged Filling | 4-06-003-06 | 0.3 | 1125.0 | 0.169 | 42.00% | 0.071 |
| Vehicle refueling Displacement Losses | 4-06-004-01 | 0.44 | 1125.0 | 0.248 | 42.00% | 0.104 |
| Vehicle Refueling Spillage Losses | 4-06-004-02 | 0.7 | 1125.0 | 0.394 | 42.00% | 0.165 |
| Total | | | | **0.810** | | **0.340** |

**Calculation Notes:**
Aboveground Storage Tank
VB-2 Vapor control system (on-board vapor recovery or Stage II)
Emission factors based on AP-42 Table 5.2-7 1/95
Gasoline BP Unleaded with MBTE is worst case total HAP (%wt) = 42%

Maximum VOC Emissions (ton/yr) = (Emission Factor/2000 lb/ton) * Maximum Annual Gasoline Usage
Maximum HAP Emissions (ton/yr) = Maximum VOC Emissions (ton/yr) * Total HAP (%wt)

## Windshield Washer Fluid Fill AF-03

**Dispensing Losses:**

Production rate: 250,000 vehicle/yr
Usage per vehicle = 0.136 gallons
Usage = 34000 gallons/year

Using equation (1) from AP-42 5.2-4 to estimate emissions:

$L_L$ = 12.46 *(SPM/T)
Where:
$L_L$ = Loading loss, pounds per 1,000 gallons (lb/$10^3$ gal) of liquid loaded
S = 1.45 [a saturation factor (Table 5.2-1), Splash Loading - Dedicated Normal Service]
P = 1.953 [true vapor pressure of liquid loaded, pounds per square inch absolute (psia)]
M = 32.04 [Molecular weight of vapors, pounds per pound-mole (lb/lb-mole) (Table 7.1-2)]

Loading loss/1000 gallons of liquid loaded = 2.13 lb/1000 gallons
Liquid throughput is 100% HAP (%wt)

**VOC/HAP Emissions = 0.004 lb/year**

Appendix A: Emission Calculations
Company Name: Honda Manufacturing of Indiana, LLC
Address, City, IN Zip: 2755 N. Michigan Avenue, Greensburg, IN 47240
Part 70 Operating permit Renewal: T 031-30127-00026
Reviewer: Aida De Guzman
Date Application Received: 18-Jan-2011

| k (PM 30) LBS/VMT | k (PM 10) LBS/VMT | k (PM 2.5) LBS/VMT | Non-operation Traffic Factor | Days of Operation (days/yr) | Days of Rain (days/yr) | RACM[1] Control Eff. Sweeping | BACM[2] Control Eff. Sweeping |
|---|---|---|---|---|---|---|---|
| 0.082 | 0.016 | 0.004 | 0.1 | 275 | 120 | 70% | 34% |

**Emission Unit Description: Fugitive Emissions from Paved Roadways and Parking Areas**

| | ROADWAY DESIGNATION | AVERAGE TRIP LENGTH (Feet) | AVERAGE TRIP LENGTH (Miles) | VEHICLE TYPE | Vehicles QTY. (V/DAY) | Vehicles AVG. WT. (tons) | Vehicles TRAVEL (VMT/DAY) | Vehicles TOTAL (VMT/YR) | Mean Weight (tons) | Silt Loading (g/sq. m) | EF PM-30 Vehicles LBS/VMT | **TOTAL PM-30 TPY** | **TOTAL PM-10 TPY** | **TOTAL PM-10 (LB/DAY)** | **TOTAL PM-2.5 TPY** | **TOTAL PM-2.5 (LB/DAY)** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Associate Entrance Drive | 10,450 | 1.979 | Car | 2,500 | 2 | 4,948 | 1,405,208 | 2 | 0.04 | 0.0035 | **0.74** | **0.32** | **2.24** | **0.12** | **0.85** |
| 2 | Associate Parking | 875 | 0.166 | Car | 2,500 | 2 | 414 | 117,661 | 2 | 0.06 | 0.0046 | **0.08** | **0.03** | **0.24** | **0.01** | **0.09** |
| 3 | Pump House Drive | 4,600 | 0.871 | Car | 10 | 2 | 9 | 2,474 | 2 | 0.04 | 0.0035 | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |
| 4 | Truck Entrance | 5,200 | 0.985 | Car | 500 | 2 | 492 | 139,848 | 13.5 | 0.04 | 0.0616 | **2.58** | **1.11** | **7.81** | **0.42** | **2.96** |
| | | 5,200 | 0.985 | 18-Wheeler | 500 | 25 | 492 | 139,848 | | | | | | | | |
| 5 | CC Container Storage Yard | 925 | 0.175 | Car | 100 | 2 | 18 | 4,975 | 21.2 | 0.06 | 0.1573 | **0.70** | **0.30** | **2.13** | **0.11** | **0.81** |
| | | 925 | 0.175 | 18-Wheeler | 500 | 25 | 88 | 24,877 | | | | | | | | |
| 6 | West Access Road | 5,300 | 1.004 | Car | 400 | 2 | 402 | 114,030 | 10.8 | 0.04 | 0.0443 | **1.23** | **0.53** | **3.72** | **0.20** | **1.41** |
| | | 5,300 | 1.004 | 18-Wheeler | 250 | 25 | 251 | 71,269 | | | | | | | | |
| 7 | South Container Lot | 450 | 0.085 | Car | 100 | 2 | 9 | 2,420 | 18.4 | 0.06 | 0.1278 | **0.16** | **0.07** | **0.49** | **0.03** | **0.19** |
| | | 450 | 0.085 | 18-Wheeler | 250 | 25 | 21 | 6,051 | | | | | | | | |
| 8 | Repair Lot | 750 | 0.142 | Car | 200 | 2 | 28 | 8,068 | 2 | 0.04 | 0.0035 | **0.00** | **0.00** | **0.01** | **0.00** | **0.00** |
| 9 | Short Test Track | 1,500 | 0.284 | Car | 1,000 | 2 | 284 | 80,682 | 2 | 0.04 | 0.0035 | **0.04** | **0.02** | **0.13** | **0.01** | **0.05** |
| 10 | Test Track | 8,200 | 1.553 | Car | 1,000 | 2 | 1,553 | 441,061 | 2 | 0.04 | 0.0035 | **0.23** | **0.10** | **0.70** | **0.04** | **0.27** |
| 11 | South Road to CBU Lot | 3,900 | 0.739 | Car | 1,000 | 2 | 739 | 209,773 | 2 | 0.04 | 0.0035 | **0.11** | **0.05** | **0.33** | **0.02** | **0.13** |
| 12 | AH CBU Lot | 3,050 | 0.578 | Car | 1,000 | 2 | 578 | 164,053 | 2.2 | 0.04 | 0.0041 | **0.13** | **0.06** | **0.40** | **0.02** | **0.15** |
| | | 6,100 | 1.155 | Shuttle | 150 | 3 | 173 | 49,216 | | | | | | | | |
| 13 | AH Entry Drive | 6,350 | 1.203 | Car | 80 | 2 | 96 | 27,324 | 14.8 | 0.04 | 0.0705 | **0.65** | **0.28** | **1.97** | **0.11** | **0.74** |
| | | 6,350 | 1.203 | 18-Wheeler | 100 | 25 | 120 | 34,155 | | | | | | | | |
| 14 | Gas Meter Building Drive | 1,200 | 0.227 | Car | 10 | 2 | 2 | 645 | 2 | 0.04 | 0.0035 | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |
| | | | | | | | 10,717 | 3,043,641 | | | **TOTAL:** | **6.68** | **2.87** | **20.18** | **1.09** | **7.64** |
| | | | | | | | | | | **TOTAL** (with rain factor) | | **6.13** | **2.63** | | **1.00** | |

Equations:

Emissions, TPY = Emission Factor * Annual VMT (1 – P/(4 * 365)) AP-42 chp.13.2.1 Paved Roads, Eq. 2 (12/03)

Where:

VMT = Vehicle miles traveled in miles per year

P = Number of "wet" days with at least 0.254 mm (0.01 in) of precipitation during the averaging period [AP-42 chp. 13.2.1 Paved Roads, Figure 13.2.1-2 (12/03)]

$EF = k\,(sL/2)^{0.65}\,(W/3)^{1.5}$ AP-42 chp.13.2.1 Paved Roads, Eq. 1 (12/03)

Where:

k = particulate size multipler for particulate size range [AP-42 chp. 13.2.1, Table 13.2-1.1 (12/03)]

sL = road surface silt loading (grams per square meter)($g/m^3$) - See Note 3

W = average weight (tons) fo the vehicles traveling the road

Notes:

1. RACM control efficiency is used for PM-30 emissions only. From Table 2.1.1-3 of the Reasonably Available Control Measures guide for fugitive dust sources.
2. BACM control efficiency is used for PM-10 emissions only. From Table 4-3 of the "Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures".
3. Silt loading based on test samples from ELP and MAP sites.

Appendix A: Emission Calculations
Company Name: Honda Manufacturing of Indiana, LLC
Address, City, IN Zip: 2755 N. Michigan Avenue, Greensburg, IN 47240
Part 70 Operating permit Renewal: T 031-30127-00026
Reviewer: Aida De Guzman
Date Application Received: 18-Jan-2011

| k (PM 30) LBS/VMT | k (PM 10) LBS/VMT | k (PM 2.5) LBS/VMT | Non-operation Traffic Factor | Days of Operation (days/yr) | Days of Rain (days/yr) | RACM[1] Control Eff. Surf. Improve |
|---|---|---|---|---|---|---|
| 4.9 | 1.5 | 0.23 | 0.1 | 275 | 120 | 30% |

**Emission Unit Description: Fugitive Emissions from Paved Roadways and Parking Areas**

| | ROADWAY DESIGNATION | AVERAGE TRIP LENGTH (Feet) | AVERAGE TRIP LENGTH (Miles) | VEHICLE TYPE | Vehicles QTY. (V/DAY) | Vehicles AVG. WT. (tons) | Vehicles TRAVEL (VMT/DAY) | Vehicles TOTAL (VMT/YR) | Mean Weight (tons) | Silt Content (%) | EF PM-30 Vehicles LBS/VMT | **TOTAL PM-30 TPY** | **TOTAL PM-10 TPY** | **TOTAL PM-10 (LB/DAY)** | **TOTAL PM-2.5 TPY** | **TOTAL PM-2.5 (LB/DAY)** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| U1 | Contractors Lot | 2,000 | 0.379 | Car | 5 | 2 | 1.9 | 538 | 4.3 | 6.0 | 0.06 | **0.01** | **0.00** | **0.03** | **0.00** | **0.01** |
| | | 2,000 | 0.379 | Truck | 2 | 10 | 0.8 | 215 | | | | | | | | |
| U2 | Gravel Access Road | 3,000 | 0.568 | Car | 5 | 2 | 2.8 | 807 | 2.0 | 6.0 | 0.04 | **0.01** | **0.00** | **0.02** | **0.00** | **0.01** |
| | | | | | | | 5 | 1,560 | | | **TOTAL:** | **0.01** | **0.01** | **0.05** | **0.00** | **0.01** |
| | | | | | | | | | | **TOTAL** (with rain factor) | | **0.01** | **0.00** | | **0.00** | |
| | | | | | | | | | | | Modeling (lb/hr) - | | | **0.00** | | **0.00** |

Equations:

Emissions, TPY = Emission Factor * Annual VMT (1 – P/365) AP-42 chp. 13.2.2, Unpaved Roads, Eq. 2 (12/03)

Where:
VMT = Vehicle miles traveled in miles per year
P = Number of "wet" days with at least 0.254 mm (0.01 in) of precipitation during the averaging period [AP-42 chp. 13.2.1 Paved Roads, Figure 13.2.1-2 (12/03)]

$EF = k (s/12)^{0.9} (W/3)^{0.45}$ [PM-10/PM-2.5] AP-42 chp. 13.2.2, Unpaved Roads, Eq. 1a (12/03)

$EF = k (s/12)^{0.7} (W/3)^{0.45}$ [PM-30] AP-42 chp. 13.2.2, Unpaved Roads, Eq. 1a (12/03)

Where:
k = particulate size multipler for particulate size range (lb/VMT) [AP-42 chp. 13.2.1, Table 13.2-1.1 (21/03)]
s = surface material silt content - See Note 2
W = Mean vehicle weight (tons)

Notes:
1. RACM control efficiency is used for PM-30 emissions only. From Table 2.1.1-3 of the Reasonably Available Control Measures guide for fugitive dust sources.
2. Silt content from Table 13.2.2-1 of AP-42 (12/03).