



*Mitchell E. Daniels, Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 14, 2009

RE: General Motors Corporation - Truck Group / 003-23379-00036

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

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

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

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

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

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

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

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

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

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

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

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

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

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



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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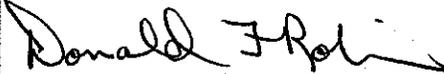
## Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**General Motors Corporation - Truck Group  
12200 LaFayette Center Road  
Roanoke, Indiana 46783**

(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.: T 003-23379-00036	
Issued by:  Donald F. Robin, P.E., Section Chief Permits Branch Office of Air Quality	Issuance Date: April 14, 2009 Expiration Date: April 14, 2014

## TABLE OF CONTENTS

### A. SOURCE SUMMARY

- 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

- B.1 Definitions [326 IAC 2-7-1]
- B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)]  
[IC 13-15-3-6(a)]
- B.3 Term of Conditions [326 IAC 2-1.1-9.5]
- B.4 Enforceability [326 IAC 2-7-7]
- B.5 Severability [326 IAC 2-7-5(5)]
- B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
- B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]
- B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]
- B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]
- B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)]  
[326 IAC 1-6-3]
- B.11 Emergency Provisions [326 IAC 2-7-16]
- B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]
- B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]
- B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]
- B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
- B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination  
[326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]
- B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]
- B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]
- B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]  
[326 IAC 2-7-12(b)(2)]
- B.20 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]
- B.21 Source Modification Requirement [326 IAC 2-7-10.5]
- B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]
- B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
- B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]
- B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

### C. SOURCE OPERATION CONDITIONS

#### 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 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]
- C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]
- C.13 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.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]
- C.16 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]
- C.17 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.18 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.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]
- C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

**Stratospheric Ozone Protection**

- C.21 Compliance with 40 CFR 82 and 326 IAC 22-1

**D.1 FACILITY OPERATION CONDITIONS - Natural Gas Usage**

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

- D.1.1 Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) [326 IAC 2-2]
- D.1.2 Opacity Limits [326 IAC 5-1]
- D.1.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-2] [326 IAC 7-2-1]
- D.1.4 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]
- D.1.5 Nitrogen Oxides (NO<sub>x</sub>) [326 IAC 2-2]
- D.1.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.1.7 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-2-1]
- D.1.8 Testing Requirement [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

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

- D.1.9 Continuous Emission Monitoring [326 IAC 2-2] [326 IAC 3-5] [40 CFR 60, Subpart Db]
- D.1.10 Visible Emissions Notations

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

- D.1.11 Record Keeping Requirements
- D.1.12 Reporting Requirements

**D.2 FACILITY OPERATION CONDITIONS - ELPO Dipping System and Miscellaneous Coating and Cleaning Operations**

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

- D.2.1 PSD BACT Limits [326 IAC 2-2]
- D.2.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-2]
- D.2.3 Miscellaneous Metal Coating Operations [326 IAC 8-2-9]
- D.2.4 Particulate [326 IAC 6-3-2(d)]

D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.2.6 PSD VOC BACT Limit [326 IAC 2-2]
- D.2.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]
- D.2.8 PM and VOC Controls [326 IAC 6-3-2] [326 IAC 8-1-2] [326 IAC 2-2]
- D.2.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-2]

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

- D.2.10 Thermal Oxidizer Temperature [40 CFR 64]
- D.2.11 Parametric Monitoring [40 CFR 64]

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

- D.2.12 Record Keeping Requirements
- D.2.13 Reporting Requirements

**D.3 FACILITY OPERATION CONDITIONS – Primer Surfacer System**

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

- D.3.1 PSD BACT Limits [326 IAC 2-2]
- D.3.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-2]
- D.3.3 Particulate Matter (PM) [326 IAC 6-3-2(d)]
- D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.3.5 VOC PSD BACT Limit [326 IAC 2-2]
- D.3.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]
- D.3.7 PM and VOC Controls [326 IAC 2-2] [326 IAC 6-3-2] [326 IAC 8-1-2]
- D.3.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

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

- D.3.9 Thermal Oxidizer Temperature [40 CFR 64]
- D.3.10 Parametric Monitoring [40 CFR 64]
- D.3.11 Monitoring [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
- D.3.13 Reporting Requirements

**D.4 FACILITY OPERATION CONDITIONS – Topcoat System**

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

- D.4.1 PSD BACT Limits [326 IAC 2-2]
- D.4.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-2]
- D.4.3 Particulate Matter (PM) [326 IAC 6-3-2(d)]
- D.4.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.4.5 PSD VOC BACT Limit [326 IAC 2-2]
- D.4.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]
- D.4.7 PM and VOC Controls [326 IAC 2-2] [326 IAC 6-3-2] [326 IAC 8-1-2]
- D.4.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-2]

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

- D.4.9 Catalytic Oxidizer Temperature [40 CFR 64]
- D.4.10 Parametric Monitoring [40 CFR 64]
- D.4.11 Monitoring [40 CFR 64]

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

D.4.12 Record Keeping Requirements

D.4.13 Reporting Requirements

**D.5 FACILITY OPERATION CONDITIONS – Insignificant Activities**

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

D.5.1 Particulate Matter Limitations for Process Operations [326 IAC 6-3-2]

**E.1 SOURCE OPERATING CONDITIONS - NSPS, Subpart Db**

E.1.1 General Provisions Relating to NSPS Db [326 IAC 12] [40 CFR Part 60, Subpart A]

E.1.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Db]

**E.2 SOURCE OPERATING CONDITIONS - NSPS, Subpart MM**

E.2.1 General Provisions Relating to NSPS MM [326 IAC 12] [40 CFR Part 60, Subpart A]

E.2.2 Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations [40 CFR Part 60, Subpart MM]

**E.3 SOURCE OPERATING CONDITIONS - NESHAP, Subpart IIII**

E.3.1 General Provisions Relating to NESHAP IIII [326 IAC 20-1] [40 CFR Part 63, Subpart A]

E.3.2 Surface Coating of Automobiles and Light-Duty Trucks NESHAP [40 CFR Part 63, Subpart IIII]

**Certification**

**Emergency Occurrence Report**

**Natural Gas Fired Boiler Certification**

**Quarterly and Semi-Annual Reports**

**Quarterly Deviation and Compliance Monitoring Report**

**Attachment A: 40 CFR 60, Subpart Db**

**Attachment B: 40 CFR 60, Subpart MM**

**Attachment C: 40 CFR 63, Subpart IIII**

## SECTION A SOURCE SUMMARY

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

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

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The Permittee owns and operates a stationary automobile and light duty truck assembly plant.

Source Address:	12200 LaFayette Center Road, Roanoke, Indiana 46783
Mailing Address:	12200 LaFayette Center Road, Roanoke, IN 46783
General Source Phone Number:	(260) 673-2480
SIC Code:	3711
County Location:	Allen
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Major Source, under Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

- (a) Facility-wide natural gas usage, including combustion units described as follows:
- (1) One (1) natural gas/No. 2 or No. 6 fuel oil/landfill gas fired boiler, identified as 003, constructed in 1968, relocated to the source in August 1985, burners approved for replacement through Administrative Amendment No. 003-26644-00036, issued on July 31, 2008, with a maximum capacity of 240 MMBtu/hr, using low excess air as control, and exhausting to stack 01;
  - (2) One (1) natural gas/No.2 fuel oil fired boiler, identified as 004, constructed in April 1992, with a maximum capacity of 228 MMBtu/hr for natural gas, and 220 MMBtu/hr for No. 2 fuel oil, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;
  - (3) One (1) natural gas/No. 2 fuel oil fired boiler, identified as 005, constructed in March 1993, with a maximum capacity of 228 MMBtu/hr for natural gas, and 220 MMBtu/hr for No. 2 fuel oil, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;
  - (4) Fifty-six (56) space heaters and process heaters using natural gas, identified as 007, with a total heat input capacity of 50.6 MMBtu/hr, using no control, and exhausting to various stacks denoted as stack 13; and
  - (5) Twenty (20) natural gas fired air supply house burners, constructed in 2001, identified as MOD 1 through MOD 10 (each mod air supply house contains two burners), with emissions exhausted through their respective booth stacks denoted as SO4, and each burner rated at 12.6 MMBtu per hour.
- (b) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using

- natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;
- (c) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, using a natural gas fired regenerative thermal oxidizer with a maximum capacity of 16 MMBtu/hr as VOC control, and waterwash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the fixed bell cup wash purges into the booth and the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above;
  - (d) One (1) Topcoat System, identified as 008, constructed in August 1985, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, with the maximum capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using waterwash as PM control, and exhausting to stack 04;;
  - (e) Miscellaneous sealers/adhesives/additives/solvents, identified as 009, constructed in August 1985, using no controls, and exhausting to stacks 07 and 08;
  - (f) One (1) Final Repair Operation, identified as 012, constructed in August 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls;
  - (g) One (1) Maintenance Paint Operation, identified as 013, constructed in August 1985, using no control, and exhausting to stack 10; and
  - (h) One (1) Gasoline Fill Operation, identified as 014, constructed in August 1985, including tanks 8 and 9, each with a capacity of 20,000 gallons, using either a natural gas afterburner with a maximum capacity of 0.15 MMBtu/hr, or the vehicle being fueled is equipped with an Onboard Refueling Vapor Recovery (ORVR) System as VOC control, and exhausting to stack 12.

A.3 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 , as defined in 326 IAC 2-7-1(21):

- (a) 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 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations [326 IAC 6-3-2].
- (b) Storage tanks, identified as 1 (solvent/thinner), 2 (solvent/thinner), 7 (automatic transmission fluid), 8 (reclaimed solvent), 12 (fuel oil), 13 (fuel oil), 14 (fuel oil), 15 (fuel oil), and two (2) 18,900 gallon waste purge solvent tanks, all constructed after July 23, 1984 [40 CFR 63, Subpart IIII].
- (c) Space heaters, process heaters, or boilers using natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (d) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (e) 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.

- (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (f) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2].
- (g) Closed loop heating and cooling systems.
- (h) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (i) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.
- (j) Noncontact cooling tower systems with natural draft cooling towers not regulated under a NESHAP.
- (k) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (l) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone [326 IAC 6-3-2].
- (m) Paved and unpaved roads and parking lots with public access.
- (n) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (o) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (p) On-site fire and emergency response training approved by the department.
- (q) Diesel generators not exceeding 1600 horsepower.
- (r) Other emergency equipment as follows: Stationary fire pumps.
- (s) A laboratory as defined in 326 IAC 2-7(21)(D).
- (t) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (u) Other activities or categories with emissions less than insignificant thresholds:
  - (1) Fluorocarbon R-134A Storage Tanks (Main Plant);
  - (2) Sulfuric Acid Storage Tank (Wastewater Treatment Plant);
  - (3) Grinding Operations (Light Duty Truck Body Shop) [326 IAC 6-3-2];
  - (4) Pre-phosphate Washers (Light Duty Truck Assembly Line);
  - (5) Multi-stage Phosphate Systems (Light Duty Truck Assembly Line);

- (6) Feather Dusters (Light Duty Truck Assembly Line);
- (7) Vehicle washers prior to shipping (Light Duty Truck Assembly Line);
- (8) Spot sanding and painting (Light Duty Truck Assembly Line);
- (9) Bulk Storage Material Transferring Equipment; i.e. pumps, valves, pipes, flanges, etc. (Light Duty Truck Assembly Line);
- (10) Vehicle Fluid Fill Operations; i.e. engine oil, windshield, transmission, engine coolant, power steering fluid, brake fluid, and air conditioning refrigerant (Light Duty Truck Assembly Line);
- (11) Engine Subassembly Lines (Light Duty Truck Assembly Line);
- (12) Radiator Subassembly Lines (Light Duty Truck Assembly Line);
- (13) Trim Assembly Lines (Light Duty Truck Assembly Line);
- (14) Maintenance Shops (Light Duty Truck Assembly Line);
- (15) Gasoline/Diesel Tank Assembly Areas (Light Duty Truck Assembly Line);
- (16) Mechanical Repair Stalls (Light Duty Truck Assembly Line);
- (17) Final Vehicle Inspection (Care Building);
- (18) Wastewater Treatment Plant;
- (19) Storage Tanks;
- (20) Body Washers;
- (21) Mig Welding [326 IAC 6-3-2]; and
- (22) Diesel Pumps.

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

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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]

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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)]

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- (a) This permit, T 003-23379-00036, is issued for a fixed term of five (5) years from the original 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]

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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]

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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)]

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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)]

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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)]

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

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(34).

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

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, 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 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (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 contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept 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.11 Emergency Provisions [326 IAC 2-7-16]

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- (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 Section), or  
Telephone Number: 317-233-0178 (ask for Compliance Section)  
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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
  - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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- (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 T 003-23379-00036 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

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

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

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

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

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

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

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

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

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

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or

anticipated noncompliance does not stay any condition of this permit.

[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

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

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
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 in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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(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 shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

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

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(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 emissions allowable under 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to

assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

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

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

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:  
  
Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

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

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

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

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

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

#### C.1 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 5-1-3 (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 or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

#### 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 by using ambient air quality modeling pursuant to 326 IAC 1-7-4. 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 61-52 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana 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]

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

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

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

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

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

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

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

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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)]

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

Indiana Department of Environmental Management  
Compliance 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.11 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.
- (b) In the event that a breakdown of a continuous emission monitoring equipment system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (c) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5 and 40 CFR 60, Subpart Db.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C.13 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.14 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.15 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, an the Permittee must comply with the applicable requirements of 40 CFR 68.

C.16 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

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

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

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

### C.18 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]

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

The statement must be submitted to:

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

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

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

### C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3]

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- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a 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(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) 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(II)) at an existing emissions unit, document and maintain the following records:

- (A) A description of the project.
- (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
- (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
  - (i) Baseline actual emissions;
  - (ii) Projected actual emissions;
  - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and
  - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (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(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) 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.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

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- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance 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) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (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).
- (g) The report for project at an existing emissions unit shall be submitted within 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 deems fit to include in this report.

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

- (h) 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.21 Compliance with 40 CFR 82 and 326 IAC 22-1**

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

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

## SECTION D.1

## FACILITY OPERATION CONDITIONS

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

Facility-wide natural gas usage, including combustion units described as follows:

- (1) One (1) natural gas/No. 2 or No. 6 fuel oil/landfill gas fired boiler, identified as 003, constructed in 1968, relocated to the source in August 1985, burners approved for replacement through Administrative Amendment No. 003-26644-00036, issued on July 31, 2008, with a maximum capacity of 240 MMBtu/hr, using low excess air as control, and exhausting to stack 01;
- (2) One (1) natural gas/No.2 fuel oil fired boiler, identified as 004, constructed in April 1992, with a maximum capacity of 228 MMBtu/hr for natural gas, and 220 MMBtu/hr for No. 2 fuel oil, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;
- (3) One (1) natural gas/No. 2 fuel oil fired boiler, identified as 005, constructed in March 1993, with a maximum capacity of 228 MMBtu/hr for natural gas, and 220 MMBtu/hr for No. 2 fuel oil, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01; and
- (4) Twenty (20) natural gas fired air supply house burners, constructed in 2001, identified as MOD 1 through MOD 10 (each mod air supply house contains two burners), with emissions exhausted through their respective booth stacks denoted as SO4, and each burner rated at 12.6 MMBtu per hour.

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

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

#### D.1.1 Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) [326 IAC 2-2]

Pursuant to Permit PSD (02) No. 1575, issued on November 30, 1984; CP (003) No. 2000, issued on September 9, 1991; CP No. 003-2524, issued on October 13, 1992; and 326 IAC 2-2 PSD BACT:

- (a) for Boiler 003:
  - (1) PM emissions from Boiler 003 shall not exceed 0.015 lb/MMBtu when combusting natural gas, and shall not exceed 0.056 lb/MMBtu when combusting fuel oil. Compliance with these limits shall also satisfy the requirements of 326 IAC 6-2-4.
  - (2) PM emissions shall not exceed 16 tons per year from the combustion of natural gas, and shall not exceed 59 tons per year from the combustion of fuel oil.
  - (3) NO<sub>x</sub> emissions shall not exceed 0.2 lb/MMBtu when combusting natural gas, and shall not exceed 0.3 lb/MMBtu when combusting fuel oil. These limits are considered PSD BACT for this emission unit.
- (b) for Boiler 004:
  - (1) No. 2 fuel oil usage shall not exceed 1.1 million gallons and fuel sulfur content shall not exceed 0.49%, with compliance determined at the end of each month. Compliance with this limit shall limit SO<sub>2</sub> emissions from Boiler 004 to less than

40 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable.

- (2) NO<sub>x</sub> emissions shall not exceed 0.098 lb/MMBtu input from the combustion of natural gas and shall not exceed 0.13 lb/MMBtu input from the combustion of No. 2 fuel oil. Flue gas recirculation and low NO<sub>x</sub> burners are considered PSD BACT for this emission unit.
- (c) for Boiler 005:
- (1) No. 2 fuel oil usage shall not exceed 3.2 million gallons per twelve (12) consecutive month period and fuel sulfur content shall not exceed 0.49%, with compliance determined at the end of each month. Compliance with this limit, combined with a fuel oil heating value of 140,000 Btu per gallon of No. 2 fuel oil and the netting analysis conducted in CP (003) 003-2524 shall limit SO<sub>2</sub> and NO<sub>x</sub> net emissions from Boiler 005 to less than 40 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable.
  - (2) NO<sub>x</sub> emissions shall not exceed 0.098 lb/MMBtu from the combustion of natural gas and shall not exceed 0.13 lb/MMBtu from the combustion of No. 2 fuel oil.

#### D.1.2 Opacity Limits [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity for Boiler 003 shall meet the following:

- (a) When operating alone, the opacity from Boiler 003 shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period. 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) in a six (6) hour period. The opacity standards apply except during periods of startup, shutdown, or malfunction.
- (b) When operating with Boiler 004 and/or Boiler 005, the opacity from Boiler 003 shall not exceed twenty percent (20%) per six (6) minute average except for one six (6) minute averaging period per hour of not more than twenty-seven percent (27%) opacity. The opacity standards apply except during periods of startup, shutdown, or malfunction.

#### D.1.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-2] [326 IAC 7-2-1]

(a) Pursuant to 326 IAC 7-1.1-2 (SO<sub>2</sub> Emissions Limitations):

- (1) The SO<sub>2</sub> emissions from Boiler 003 shall not exceed 1.6 lb/MMBtu when combusting No. 6 fuel oil and shall not exceed 0.5 lb/MMBtu when combusting No. 2 fuel oil.
- (2) The SO<sub>2</sub> emissions from Boiler 004 shall not exceed 0.5 lb/MMBtu when combusting No. 2 fuel oil,
- (3) The SO<sub>2</sub> emissions from Boiler 005 shall not exceed 0.5 lb/MMBtu when combusting No. 2 fuel oil.

(b) Pursuant to 326 IAC 7-2-1, compliance shall be determined on a calendar month average.

#### D.1.4 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the 240, 228, and 228 million BTU/hour boilers, identified as Boilers 003, 004, and 005, shall be limited as follows:

- (a) Boiler 003 shall be limited to 0.26 pound per million BTU heat input.
- (b) Boiler 004 shall be limited to 0.22 pound per million BTU heat input.
- (c) Boiler 005 shall be limited to 0.20 pound per million BTU heat input.

**D.1.5 Nitrogen Oxides (NO<sub>x</sub>) [326 IAC 2-2]**

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Pursuant to Significant Source Modification No. 003-12830-00036, issued on March 5, 2001 and in order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

- (a) NO<sub>x</sub> emissions from the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) shall not exceed 100 pounds of NO<sub>x</sub> per million standard cubic feet of natural gas.
- (b) The natural gas usage for the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) shall not exceed six hundred and ten (610) million cubic feet of natural gas per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits shall limit the NO<sub>x</sub> emissions from the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) to less than forty (40) tons per year and render 326 IAC 2-2 not applicable.

**D.1.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for Boilers 003, 004, and 005.

**Compliance Determination Requirements**

**D.1.7 Sulfur Dioxide Emissions and Sulfur Content [326 IAC 7-2-1]**

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Compliance with Condition D.1.3 shall be determined using one of the following options:

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input for No. 2 fuel oil and do not exceed one and six-tenths (1.6) pounds per million BTU heat input for No. 6 fuel oil by:
  - (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
    - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon refilling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

**D.1.8 Testing Requirement [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

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Within 180 days of installation of the replacement burners for Boiler 003, as approved in Administrative Amendment No. 003-26644-00036, issued on July 31, 2008, the Permittee shall perform NO<sub>x</sub> and CO testing on Boiler 003 when using only landfill gas, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing.

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

**D.1.9 Continuous Emission Monitoring [326 IAC 2-2] [326 IAC 3-5] [40 CFR 60, Subpart Db]**

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- (a) Pursuant to 326 IAC 2-2, 326 IAC 3-5, and 326 IAC 12, the Permittee shall continuously monitor and record the following parameters to demonstrate compliance with Condition D.1.1 and Section E.1:
- (1) Nitrogen oxide concentration for Boilers 004 and 005, and
  - (2) Opacity for Boilers 004 and 005, unless the Permittee uses one of the following to meet compliance monitoring requirements:
    - (A) Boiler 004 and Boiler 005 use a PM CEMS to monitor PM emissions; or
    - (B) Boiler 004 and Boiler 005 burn only liquid (excluding residual oil) or gaseous fuels with potential SO<sub>2</sub> emissions of 0.060 lb/MMBtu or less and do not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions. The Permittee shall maintain fuel records of the sulfur content of the fuels burned, as described in Condition D.1.11; or
    - (C) Boiler 004 and Boiler 005 burn coke oven gas alone or in combination with fuels meeting the criteria in Condition D.1.9(a)(2)(B) and do not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions; or
    - (D) Boiler 004 and Boiler 005 do not use post-combustion technology (except a wet scrubber) for reducing PM, SO<sub>2</sub>, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from Boiler 004 and Boiler 005 are maintained at levels less than or equal to 0.15 lb/MMBtu on a steam generating unit operating day average basis. The Permittee shall demonstrate compliance by the following:
      - (i) A CO CEM shall be installed, certified, maintained, and operated in accordance with Condition D.1.9(c) and (d).
      - (ii) The Permittee shall calculate the one (1) hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the boiler. The twenty-four (24) hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.
      - (iii) The Permittee shall evaluate the preceding twenty-four (24) hour average CO emission level each steam generating unit operating day excluding periods of boiler startup, shutdown, or malfunction. If the twenty-four (24) hour average CO emission level is greater

than 0.15 lb/MMBtu, the Permittee shall initiate an investigation of the relevant equipment and control systems within twenty-four (24) hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the twenty-four (24) hour average CO emission level to 0.15 lb/MMBtu or less.

- (iv) The Permittee shall record the CO measurements and calculations performed in accordance with Condition D.1.9(a)(2)(D)(ii) and (iii) and any corrective actions taken. The record of corrective action taken must include the date and time during which the twenty-four (24) hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.
- (E) Boilers 004 and 005 burn fuel oils that contain less than or equal to 0.30 weight percent sulfur and a trained employee obtains visible emission notations in accordance with Condition D.1.10. The commissioner may require visible emission readings in accordance with 40 CFR 60, Appendix A-4, as required, to assure compliance with opacity requirements.
- (b) The continuous monitoring systems have been installed and operational prior to conducting the performance tests. A monitoring protocol has been performed in accordance with the applicable procedures under 40 CFR 60, Appendix B, Performance Specification 1 and 326 IAC 3-5.
- (c) The Permittee shall record the output of the system and shall perform the required record keeping, pursuant to 326 IAC 3-5-6, and reporting, pursuant to 326 IAC 3-5-7.
- (d) In instances of CEM downtime, compliance with the NO<sub>x</sub> emission limits established in Condition D.1.1 shall be determined by the use of the appropriate AP-42 emission factors. Compliance with the particulate emission limits contained in Conditions D.1.1 and D.1.4 shall be determined by burning clean fuels such as natural gas, landfill gas or distillate fuel oil.

#### D.1.10 Visible Emissions Notations

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- (a) Visible emission notations of the exhaust from stack 01 for Boilers 003, 004 and 005 shall be performed once per day during normal daylight operations when burning fuel oil. A trained employee shall record whether emissions are normal or abnormal. Visible emission notations are not required when the Permittee initiates operation of the boilers on fuel oil to verify oil burning capability and each boiler operates on fuel oil less than one (1) hour on a quarterly basis.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps

in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

### **D.1.11 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.1, D.1.2, D.1.3 and D.1.7, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken monthly and shall be complete and sufficient to establish compliance with the NO<sub>x</sub>, SO<sub>2</sub>, and opacity emission limits established in Conditions D.1.1, D.1.2, and D.1.3.

- (1) Calendar dates covered in the compliance determination period;
- (2) Heat input for Boilers 003, 004, and 005;
- (3) Actual No. 2 fuel oil usage for Boilers 003, 004, and 005 and actual No. 6 fuel oil usage for Boiler 003 since last compliance determination period and equivalent sulfur dioxide emissions;
- (4) Amount of natural gas usage for Boilers 003, 004, and 005 and amount of landfill gas usage for Boiler 003;
- (5) Output of the NO<sub>x</sub> continuous emissions monitoring systems on Boilers 004 and 005 and record keeping required pursuant to 326 IAC 3-5-6;

If the fuel supplier certification is used to determine compliance, when burning alternate fuels and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

- (6) Fuel supplier certifications;
  - (7) The name of the fuel supplier; and
  - (8) A statement from the supplier that certifies the sulfur content of the fuel oil.
- (b) To document compliance with Condition D.1.5, the Permittee shall maintain records of the natural gas usage to the twenty (20) natural gas fired burners (MOD 1 - MOD 10) monthly.
- (c) To document compliance with Conditions D.1.2 and D.1.10, the Permittee shall maintain a daily record of visible emission notations of the stack 01 exhaust for Boilers 003, 004, and 005 when burning fuel oil. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day, conducted start-up for validation purposes, the process did not burn oil that day).
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.1.12 Reporting Requirements**

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- (a) A semi-annual summary of the information to document compliance with Conditions D.1.1(b)(1) and D.1.1(c)(1) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the

"responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A quarterly summary of the information to document compliance with Condition D.1.5(b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The natural gas fired boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, 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).
- (d) The Permittee shall submit NOx CEM performance audit reports pursuant to 326 IAC 3-5-5(e).

## SECTION D.2

## FACILITY OPERATION CONDITIONS

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

- (1) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;
- (2) Miscellaneous sealers/adhesives/additives/solvents, identified as 009, constructed in August 1985, using no controls, and exhausting to stacks 07 and 08;
- (3) One (1) Final Repair Operation, identified as 012, constructed in August 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls; and
- (4) One (1) Maintenance Paint Operation, identified as 013, constructed in August 1985, using no control, and exhausting to stack 10.

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

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

#### D.2.1 PSD BACT Limits [326 IAC 2-2]

Pursuant to PSD (02) 1575, issued on November 30, 1984 and 326 IAC 2-2 (Prevention of Significant Deterioration) and in conjunction with Conditions D.3.1 and D.4.1, the total VOC usage shall be limited such that the source's VOC potential to emit from all surface coating operations and cleaning operations, including ELPO Dipping System (006), Primer Surfacer System (010), Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013), does not exceed 3,204 tons per twelve consecutive month period, with compliance determined at the end of each month.

#### D.2.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-2]

- (a) Pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations), the volatile organic compound (VOC) delivered to the applicator from ELPO Dipping System (006) and Final Repair Operation (012) application, flash-off and curing of coatings applied to automobile and light duty truck bodies, hoods, doors, cargo boxes, fenders, and grill openings shall not exceed:
  - (1) 0.23 kilograms per liter of coating (1.9 pounds per gallon), excluding water, for the ELPO Dipping System (006).
  - (2) 0.58 kilograms per liter of coating (4.8 pounds per gallon), excluding water, for the Final Repair Operation (012).
- (b) Pursuant to 326 IAC 8-1-2(a) the emission limitations specified in D.2.2(a), shall be achieved through one or any combination of thermal incineration, higher solids (low solvent) coatings, water borne coatings and/or daily averaging.
- (c) Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitation in D.2.2(a)(1), the overall efficiency of the ELPO Dipping System (006) thermal oxidizers shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = 100 \times (V - E)/V$$

Where:

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

E = Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied, where  $E = L / [1 - (L / D)]$ , and

L = Applicable emission limit in pounds of VOC per gallon of coating.

D = Density of VOC in coating in pounds per gallon of VOC.

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

A solvent density of seven and thirty-six hundredths (7.36) pounds of VOC per gallon of solvent shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit. Actual solvent density shall be used to determine compliance; and

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

#### D.2.3 Miscellaneous Metal Coating Operations [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the Permittee shall not allow the discharge into the atmosphere of VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator for the Miscellaneous Sealers and Adhesives (009).
- (b) Pursuant to 326 IAC 8-1-2(a) the emission limitations specified in D.2.3(a), shall be achieved through one or any combination of higher solids (low solvent) coatings, water borne coatings and/or an equivalent emission limitation.
- (c) Pursuant to 326 IAC 8-1-2(a)(5), when using an equivalent emission limitation to comply with Condition D.2.3(a), the VOC emissions from the Miscellaneous Sealers and Adhesives (009) shall be limited to no greater than 1.34 kilograms of VOC per liter solids deposited (11.2 pounds per gallon solids deposited) based on an actual measured transfer efficiency greater than 60%. Compliance with the equivalent emission limitation shall be determined according to the following equation:

$$E = \frac{L}{[(1 - (L / D)) \cdot T]}$$

Where:

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

L = Actual VOC content in pounds of VOC per gallon of coating, as applied, excluding water and nonphotochemically reactive hydrocarbons

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

T = Actual measured transfer efficiency

- (d) Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from application equipment during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

**D.2.4 Particulate [326 IAC 6-3-2(d)]**

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Pursuant to 326 IAC 6-3-2(d), particulate from the Final Repair Operation (012) shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

**D.2.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the ELPO Dipping System (006) and its control devices.

**Compliance Determination Requirements**

**D.2.6 PSD VOC BACT Limit [326 IAC 2-2]**

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Compliance with the VOC PSD BACT limit in Condition D.2.1 shall be determined within 30 days of the end of each month based on the total volatile organic compound usage for coating and cleaning operations per month, and adding the result to the calculated VOC usage from the previous eleven (11) months.

**D.2.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]**

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- (a) Compliance with the VOC contents contained in Conditions D.2.2 and D.2.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- (b) When daily averaging is used to comply with the emission limitations in Condition D.2.2(a), one of the following equations shall be used to determine the volume weighted average of coatings on a daily basis:

- (1) When a thermal oxidizer is used to demonstrate compliance with an emission limitation, the daily volume weighted average shall be determined as follows:

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

Where:

- A = daily volume weighted average, lb VOC/gal, less water  
C = VOC content of coating i, lb VOC/gal, less water  
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 thermal oxidizer  
DRE = destruction/removal efficiency of thermal oxidizer

- (2) When a thermal oxidizer is not used to demonstrate compliance with an emission limitation, the daily volume weighted average shall be determined as follows:

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

Where:

- A = daily volume weighted average, lb VOC/gal, less water  
C = VOC content of coating i, lb VOC/gal, less water  
U = actual coating i usage, gal/day  
n = no. of coatings used during the day

**D.2.8 PM and VOC Controls [326 IAC 6-3-2] [326 IAC 8-1-2] [326 IAC 2-2]**

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- (a) Pursuant to 326 IAC 6-3-2(d), the Permittee shall operate the dry filters at all times the Final Repair Operation (012) is in operation.
- (b) Pursuant to 326 IAC 8-1-2(a) and to comply with Conditions D.2.1 and/or D.2.2, the Permittee shall operate the thermal incinerators #1 - #3 for the ELPO Dipping System (006) at all times the processes that they are controlling are in operation, if the abatement credit is used to show compliance with Conditions D.2.1 and/or D.2.2.

**D.2.9 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-2]**

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The following facilities are required to stack test, when used to show compliance with Conditions D.2.1 and/or D.2.2, as follows:

- (a) Within two and one-half (2.5) years from the date of the most recent valid compliance demonstration, the Permittee shall conduct testing for VOC capture and destruction efficiency for one (1) of the thermal incinerators, #1 - #3, controlling the ELPO Dipping System (006) emissions. This test shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing on an incinerator shall not be repeated until each one has been tested.
- (b) The Permittee shall use the determined capture and destruction efficiencies from the most recent performance test for determining compliance when the control devices are used to show compliance with Conditions D.2.1 and/or D.2.2. Testing shall be conducted in accordance with Section C – Performance Testing.

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

**D.2.10 Thermal Oxidizer Temperature [40 CFR 64]**

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The following requirements shall apply only if the VOC reduction credit for the incinerators is used to show compliance with Conditions D.2.1 and/or D.2.2:

- (a) A continuous monitoring system shall be calibrated and maintained on each thermal and catalytic oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.2.1 and/or D.2.2 as approved by IDEM.
- (c) The Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the most recent compliant stack test. If the 3-hour

average temperature falls below the level observed during the most recent valid compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### **D.2.11 Parametric Monitoring [40 CFR 64]**

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The following requirements shall apply only if the VOC reduction credit for the thermal incinerators is used to show compliance with Conditions D.2.1 and/or D.2.2:

The system that continuously monitors proper operation of the thermal incinerators shall be equipped with system alarms, which shall immediately notify plant personnel that a malfunction of the emission control equipment has occurred. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

#### **D.2.12 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.2.1, D.2.2, D.2.3, D.2.6, D.2.7, D.2.10, and D.2.11, the Permittee shall maintain records in accordance with (1) through (8) below. Records maintained for (1) through (8) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.2.1, D.2.2, and D.2.3.
- (1) The VOC content of each coating material and solvent used, less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include documents necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) A log of the dates of use of each coating.
  - (4) A log of when the thermal incinerators are used to demonstrate compliance with an emission limitation.
  - (5) The calculated daily volume weighted average in pounds of VOC per gallon, less water, if applicable.
  - (6) The monthly cleanup solvent usage.
  - (7) The total VOC usage for each month.
  - (8) During periods when the thermal incinerators are used to demonstrate compliance with an emission limitation:
    - (A) The continuous temperature records (on a 3-hour average basis) for the thermal oxidizers and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.

- (B) Records of the dates of any thermal incinerator system alarms and corrective actions taken.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.13 Reporting Requirements

- (a) A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.3

## FACILITY OPERATION CONDITIONS

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

One (1) Primer Surfacer System, identified as 010, constructed in March 1994, using a natural gas fired regenerative thermal oxidizer with a maximum capacity of 16 MMBtu/hr as VOC control, and waterwash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the fixed bell cup wash purges into the booth and the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above.

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

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

#### D.3.1 PSD BACT Limits [326 IAC 2-2]

Pursuant to PSD (02) 1575, issued on November 30, 1984 and 326 IAC 2-2 (Prevention of Significant Deterioration) and in conjunction with Conditions D.2.1 and D.4.1, the total VOC usage shall be limited such that the source's VOC potential to emit from all surface coating and cleaning operations, including ELPO Dipping System (006), Primer Surfacer System (010), Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013), does not exceed 3,204 tons per twelve consecutive month period, with compliance determined at the end of each month.

#### D.3.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-2]

- (a) Pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations), the volatile organic compound (VOC) delivered to the applicator from Primer Surfacer System (010) application, flash-off and curing of coatings applied to automobile and light duty truck bodies, hoods, doors, cargo boxes, fenders, and grill openings shall not exceed 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water.
- (b) Pursuant to 326 IAC 8-1-2(a), the emission limitation specified in D.3.2(a), shall be achieved through one or any combination of thermal incineration, higher solids (low solvent) coatings, water borne coatings, and/or an equivalent emission limitation.
- (c) Pursuant to 326 IAC 8-1-2(a)(5), VOC emissions as allowed in D.3.2(a)(2) from the Primer Surfacer System (010) shall be limited to no greater than an equivalent emission limitation based on an actual measured transfer efficiency higher than 30%. The equivalent emission limitation is 1.83 kilograms of VOC per liter solids deposited (15.1 pounds per gallon solids deposited). Compliance with the above equivalent emission limitation shall be determined by use of procedures found in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations", EPA-450/3-88-018, December 1988, or by an alternative method approved by the Commissioner.
- (d) Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitation in D.3.2(a), the overall efficiency of the Primer Surfacer System (010) thermal oxidizer shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = 100 \times (V - E)/V$$

Where:

V = The actual VOC content of the coating, or, if multiple coatings

are used, the daily weighted-average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids, as applied;

E = Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied; and

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

**D.3.3 Particulate Matter (PM) [326 IAC 6-3-2(d)]**

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Pursuant to 326 IAC 6-3-2(d), particulate from Primer Surfacer System (010) shall be controlled by a dry particulate filter, waterwash, or an equivalent control device. The Permittee shall operate the control device in accordance with manufacturer's specifications.

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

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Primer Surfacer System (010), and its control devices.

**Compliance Determination Requirements**

**D.3.5 VOC PSD BACT Limit [326 IAC 2-2]**

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Compliance with the VOC PSD BACT limit in Condition D.3.1 shall be determined within 30 days of the end of each month based on the total volatile organic compound usage for coating and cleaning operations per month, and adding the result to the calculated VOC usage from the previous eleven (11) months.

**D.3.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]**

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Compliance with the VOC contents contained in Condition D.3.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

**D.3.7 PM and VOC Controls [326 IAC 2-2] [326 IAC 6-3-2] [326 IAC 8-1-2]**

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- (a) Pursuant to 326 IAC 6-3-2(d), the Permittee shall operate the waterwash system at all times the Primer Surfacer System (010) is in operation.
- (b) Pursuant to 326 IAC 8-1-2(a) and to comply with Conditions D.3.1 and D.3.2, the Permittee shall operate the regenerative thermal oxidizer for the Primer Surfacer System (010) at all times the processes that it controls are in operation.

**D.3.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]**

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The following facilities are required to stack test when used to show compliance with Conditions D.3.1 and/or D.3.2 as follows:

- (a) Within two and one-half (2.5) years from the date of the most recent valid compliance demonstration, the Permittee shall conduct testing for VOC capture and destruction efficiency for the regenerative thermal oxidizer controlling the Primer Surfacer System (010) emissions. This test shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.
- (b) The Permittee shall use the determined capture and destruction efficiencies from the most recent performance test for determining compliance when the control device is used

to show compliance with Conditions D.3.1 and/or D.3.2. Testing shall be conducted in accordance with Section C - Performance Testing.

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

#### **D.3.9 Thermal Oxidizer Temperature [40 CFR 64]**

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The following requirements shall apply only if the regenerative thermal oxidizer is used to show compliance with Conditions D.3.1 and/or D.3.2:

- (a) A continuous monitoring system shall be calibrated and maintained on the regenerative thermal oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.3.1 and/or D.3.2 as approved by IDEM.
- (c) The Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the most recent compliant stack test. If the 3-hour average temperature falls below the level observed during the most recent valid compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### **D.3.10 Parametric Monitoring [40 CFR 64]**

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The following requirements shall apply only if the VOC reduction credit for the thermal oxidizer is used to show compliance with Conditions D.3.1 and/or D.3.2:

The system that continuously monitors proper operation of the thermal oxidizer shall be equipped with system alarms, which shall immediately notify plant personnel that a malfunction of the emission control equipment has occurred. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### **D.3.11 Monitoring [40 CFR 64]**

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- (a) The condition of the Primer Surfacer System (010) waterwash system shall be monitored through the use of alarms on the water pumps that feed the systems. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) Semi-annual inspections shall be performed of the coating emissions from stack 03 and the presence of overspray on the rooftops and nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emission is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

### **D.3.12 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.3.1, D.3.2, D.3.5, D.3.6, D.3.9, and D.3.10, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.3.1 and D.3.2.
- (1) The VOC content of each coating material and solvent used, less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include documents necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) A log of the dates of use of each coating.
  - (4) A log of when the regenerative thermal oxidizer is used to demonstrate compliance with an emission limitation.
  - (5) The monthly cleanup solvent usage.
  - (6) The total VOC usage for each month.
  - (7) During periods when the regenerative thermal oxidizer is used to demonstrate compliance with an emission limitation:
    - (A) The continuous temperature records (on a 3-hour average basis) for the thermal oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
    - (B) Records of the dates of any thermal oxidizer system alarms and corrective actions taken.
- (b) To document compliance with Conditions D.3.3 and D.3.11, the Permittee shall maintain records of the dates of any waterwash alarms and corrective actions taken and shall maintain a log of semi-annual inspections.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.3.13 Reporting Requirements**

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A quarterly summary of the information to document compliance with Condition D.3.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.4 FACILITY OPERATION CONDITIONS

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

One (1) Topcoat electrostatic/air atomized system, identified as 008, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with maximum capacity of the oxidizers #1 - #7 being 7.5 MMBtu/hr each, and the maximum capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using waterwash as PM control, and exhausting to stack 04.

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

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

#### D.4.1 PSD BACT Limits [326 IAC 2-2]

Pursuant to PSD (02) 1575, issued on November 30, 1984 and 326 IAC 2-2 (Prevention of Significant Deterioration) and in conjunction with Conditions D.2.1 and D.3.1, the total VOC usage shall be limited such that the source's VOC potential to emit from all surface coating and cleaning operations, including ELPO Dipping System (006), Primer Surfacer System (010), Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013), does not exceed 3,204 tons per twelve consecutive month period, with compliance determined at the end of each month.

#### D.4.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-2]

- (a) Pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations), the volatile organic compound (VOC) delivered to the applicator from Topcoat System (008) application, flash-off and curing of coatings applied to automobile and light duty truck bodies, hoods, doors, cargo boxes, fenders, and grill openings shall not exceed 0.34 kilograms per liter of coating (2.8 pounds per gallon), excluding water.
- (b) Pursuant to 326 IAC 8-1-2(a), the emission limitation specified in D.4.2(a), shall be achieved through one or any combination of catalytic incineration, higher solids (low solvent) coatings, water borne coatings, and/or an equivalent emission limitation.
- (c) Pursuant to 326 IAC 8-1-2(a)(5), VOC emissions as allowed in D.4.2(a) from the Topcoat System (008) shall be limited to no greater than an equivalent emission limitation based on an actual measured transfer efficiency higher than 30%. The equivalent emission limitation is 1.83 kilograms of VOC per liter solids deposited (15.1 pounds per gallon solids deposited). Compliance with the above equivalent emission limitation shall be determined by use of procedures found in "Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations", EPA-450/3-88-018, December 1988, or by an alternative method approved by the Commissioner.
- (d) Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitation in D.4.2(a), the overall efficiency of the Topcoat System (008) catalytic oxidizers shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = 100 \times (V - E)/V$$

Where:

V = The actual VOC content of the coating, or, if multiple coatings are used, the daily weighted-average VOC content of all

coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids, as applied;

E = Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied; and

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

#### D.4.3 Particulate Matter (PM) [326 IAC 6-3-2(d)]

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Pursuant to 326 IAC 6-3-2(d), particulate from the Topcoat System (008) shall be controlled by a dry particulate filter, waterwash, or an equivalent control device. The Permittee shall operate the control device in accordance with manufacturer's specifications.

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

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the Topcoat System (008), and its control devices.

### Compliance Determination Requirements

#### D.4.5 PSD VOC BACT Limit [326 IAC 2-2]

---

Compliance with Condition D.4.1 shall be determined within 30 days of the end of each month based on the total volatile organic compound usage for coating and cleaning operations per month, and adding the result to the calculated VOC usage from the previous eleven (11) months.

#### D.4.6 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

---

Compliance with the VOC contents contained in Condition D.4.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

#### D.4.7 PM and VOC Controls [326 IAC 2-2] [326 IAC 6-3-2] [326 IAC 8-1-2]

---

- (a) Pursuant to 326 IAC 6-3-2(d), the Permittee shall operate the waterwash at all times the Topcoat System (008) is in operation.
- (b) Pursuant to 326 IAC 8-1-2(a), the Permittee shall operate the catalytic oxidizers #1 - #10 for the Topcoat System (008) at all times the processes that they are controlling are in operation, if the abatement credit is used to show compliance with Conditions D.4.1 and/or D.4.2.

#### D.4.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-2]

---

The following facilities are required to stack test, when the oxidizer abatement credit is used to show compliance with Conditions D.4.1 and/or D.4.2, as follows:

- (a) Within two and one-half (2.5) years from the date of the most recent valid compliance demonstration, the Permittee shall conduct testing for VOC destruction efficiency for two (2) of the 7.5 MMBtu/hr catalytic oxidizers and one (1) of the 9.5 MMBtu/hr catalytic oxidizers controlling the Topcoat System (008) emissions. This test shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing on a catalytic oxidizer shall not be repeated until each one has been tested.
- (b) The Permittee shall use the determined destruction efficiencies from the most recent

performance test for determining compliance when the control devices are used to show compliance with Conditions D.4.1 and/or D.4.2. Testing shall be conducted in accordance with Section C - Performance Testing

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

#### **D.4.9 Catalytic Oxidizer Temperature [40 CFR 64]**

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The following requirements shall apply only if the VOC reduction credit from the catalytic oxidizers is used to show compliance with Conditions D.4.1 and/or D.4.2:

- (a) A temperature measurement device shall be installed in the gas stream immediately before and after the catalyst bed. A continuous monitoring system shall be calibrated and maintained on each catalytic oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per fifteen (15) minutes. The output of this system shall be recorded as a 3-hour average.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.4.1 and/or D.4.2 as approved by IDEM.
- (c) The Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the most recent compliant stack test. If the 3-hour average temperature falls below the level observed during the most recent valid compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### **D.4.10 Parametric Monitoring [40 CFR 64]**

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The following requirements shall apply only if the VOC reduction credit for the catalytic oxidizers is used to show compliance with Conditions D.4.1 and/or D.4.2:

The system that continuously monitors proper operation of the catalytic oxidizers shall be equipped with system alarms, which shall immediately notify plant personnel that a malfunction of the emission control equipment has occurred. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### **D.4.11 Monitoring [40 CFR 64]**

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- (a) The condition of the Topcoat System (008) waterwash system shall be monitored through the use of alarms on the water pumps that feed the system. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) Semi-annual inspections shall be performed of the coating emissions from stack 03 and the presence of overspray on the rooftops and nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emission is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

### **D.4.12 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.4.1, D.4.2, D.4.5, D.4.6, D.4.9, and D.4.10, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.4.1 and D.4.2.
- (1) The VOC content of each coating material and solvent used, less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include documents necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) A log of the dates of use of each coating.
  - (4) A log of when the catalytic oxidizers are used to demonstrate compliance with an emission limitation.
  - (5) The monthly cleanup solvent usage.
  - (6) The total VOC usage for each month.
  - (7) During periods when the catalytic oxidizers are used to demonstrate compliance with an emission limitation:
    - (A) The continuous temperature records (on a 3-hour average basis) for the catalytic oxidizers and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
    - (B) Records of the dates of any catalytic oxidizer system alarms and corrective actions taken.
- (b) To document compliance with Conditions D.4.3 and D.4.11, the Permittee shall maintain records of the dates of any waterwash alarms and corrective actions taken and shall maintain a log of semi-annual inspections.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.4.13 Reporting Requirements**

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A quarterly summary of the information to document compliance with Condition D.4.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.5

## FACILITY OPERATION CONDITIONS

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

#### Insignificant Activities:

- (1) 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.
- (2) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (3) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.
- (4) Grinding Operations (Light Duty Truck Body Shop).
- (5) Mig Welding.

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

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

#### D.5.1 Particulate Matter Limitations for Process Operations [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2(e)(2) (Process Operations), the allowable PM emission rate from a manufacturing process shall not exceed 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e), the allowable PM emission rate from a manufacturing process shall not exceed E, the pounds per hour allowable emission rate, when processing a process weight up to sixty thousand (60,000) pounds per hour as determined by the following equation:

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

## SECTION E.1 SOURCE OPERATING CONDITIONS - NSPS, Subpart Db

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

- (A) One (1) natural gas/No.2 fuel oil fired boiler, identified as 004, constructed in April 1992, with a maximum capacity of 228 MMBtu/hr for natural gas, and 220 MMBtu/hr for No. 2 fuel oil, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01; and
- (B) One (1) natural gas/No. 2 fuel oil fired boiler, identified as 005, constructed in March 1993, with a maximum capacity of 228 MMBtu/hr for natural gas, and 220 MMBtu/hr for No. 2 fuel oil, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01.

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

### E.1.1 General Provisions Relating to NSPS Db [326 IAC 12] [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 Db.

### E.1.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Db]

Pursuant to 40 CFR Part 60, Subpart Db, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Db (included as Attachment A of this permit):

- (1) 40 CFR 60.40b(a), (f), (g), (j);
- (2) 40 CFR 60.41b;
- (3) 40 CFR 60.42b(k)(2);
- (4) 40 CFR 60.43b(f), (g);
- (5) 40 CFR 60.44b(a)(1), (h), (i);
- (6) 40 CFR 60.45b(a), (j), (k);
- (7) 40 CFR 60.46b(a), (b), (c), (d) or (j), (e);
- (8) 40 CFR 60.47b(f);
- (9) 40 CFR 60.48b(a), (b)(1) or (b)(2), (c), (d), (e)(2)(i) or (e)(2)(ii), (e)(3), (f), (j);
- (10) 40 CFR 60.49b(a), (b), (d), (e), (f), (g), (j), (k), (o), (r)(1), (v), (w).

## SECTION E.2 SOURCE OPERATING CONDITIONS - NSPS, Subpart MM

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

- (1) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;
- (2) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, using a natural gas fired regenerative thermal oxidizer with a maximum capacity of 16 MMBtu/hr as VOC control, and waterwash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the fixed bell cup wash purges into the booth and the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above; and
- (3) One (1) Topcoat System, identified as 008, constructed in August 1985, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, with the maximum capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using waterwash as PM control, and exhausting to stack 04.

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

### E.2.1 General Provisions Relating to NSPS MM [326 IAC 12] [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.2.2 Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations [40 CFR Part 60, Subpart MM]

Pursuant to 40 CFR Part 60, Subpart MM, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart MM (included as Attachment B of this permit):

- (1) 40 CFR 60.390;
- (2) 40 CFR 60.391;
- (3) 40 CFR 60.392(a)(1), (b), (c);
- (4) 40 CFR 60.393;
- (5) 40 CFR 60.394;
- (6) 40 CFR 60.395;
- (7) 40 CFR 60.396;
- (8) 40 CFR 60.397.

### SECTION E.3 SOURCE OPERATING CONDITIONS - NESHAP, Subpart IIII

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

- (1) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;
- (2) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, using a natural gas fired regenerative thermal oxidizer with a maximum capacity of 16 MMBtu/hr as VOC control, and waterwash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the fixed bell cup wash purges into the booth and the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above;
- (3) One (1) Topcoat System, identified as 008, constructed in August 1985, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, with the maximum capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using waterwash as PM control, and exhausting to stack 04;
- (4) Miscellaneous solvents, identified as part of 009, constructed in August 1985, using no controls, and exhausting to stacks 07 and 08;
- (5) One (1) Final Repair Operation, identified as 012, constructed in August 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls;
- (6) One (1) Maintenance Paint Operation, identified as 013, constructed in August 1985, using no control, and exhausting to stack 10; and
- (7) Storage tanks, identified as 1 (solvent/thinner), 2 (solvent/thinner), 8 (reclaimed solvent) and two (2) 18,900 gallon waste purge solvent tanks, all constructed after July 23, 1984.

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

#### E.3.1 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.3.2 Surface Coating of Automobiles and Light-Duty Trucks NESHAP [40 CFR Part 63, Subpart IIII]

The Permittee which engages in surface coating of automobiles and light-duty trucks shall comply with the following provisions of 40 CFR Part 63, Subpart IIII (included as Attachment C of this permit), with a compliance date of April 26, 2007:

- (1) 40 CFR 63.3080;
- (2) 40 CFR 63.3081;
- (3) 40 CFR 63.3082(a)-(d), (g);
- (4) 40 CFR 63.3083(b), (d);
- (5) 40 CFR 63.3091(a)-(f);
- (6) 40 CFR 63.3092;
- (7) 40 CFR 63.3093;
- (8) 40 CFR 63.3094;

- (9) 40 CFR 63.3100;
- (10) 40 CFR 63.3101;
- (11) 40 CFR 63.3110;
- (12) 40 CFR 63.3120;
- (13) 40 CFR 63.3130;
- (14) 40 CFR 63.3131;
- (15) 40 CFR 63.3150;
- (16) 40 CFR 63.3151;
- (17) 40 CFR 63.3152;
- (18) 40 CFR 63.3160(b), (c);
- (19) 40 CFR 63.3161;
- (20) 40 CFR 63.3163;
- (21) 40 CFR 63.3164;
- (22) 40 CFR 63.3165;
- (23) 40 CFR 63.3166;
- (24) 40 CFR 63.3167(a), (b), (f);
- (25) 40 CFR 63.3168(a), (b), (c), (g);
- (26) 40 CFR 63.3169;
- (27) 40 CFR 63.3170(b);
- (28) 40 CFR 63.3171;
- (29) 40 CFR 63.3173;
- (30) 40 CFR 63.3174;
- (31) 40 CFR 63.3175;
- (32) 40 CFR 63.3176;
- (33) Table 1 to 40 CFR 63, Subpart IIII;
- (34) Table 2 to 40 CFR 63, Subpart IIII;
- (35) Table 3 to 40 CFR 63, Subpart IIII;
- (36) Appendix A to Subpart IIII of Part 63.

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

Source Name: General Motors Corporation - Truck Group  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Mailing Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T 003-23379-00036

**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: General Motors Corporation - Truck Group  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Mailing Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T 003-23379-00036

**This form consists of 2 pages**

**Page 1 of 2**

<p>1. This is an emergency as defined in 326 IAC 2-7-1(12)</p> <ul style="list-style-type: none"><li>• 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</li><li>• 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.</li></ul>
---

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

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

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

Page 2 of 2

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

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

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

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

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

A certification is not required for this report.

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

**PART 70 OPERATING PERMIT  
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: General Motors Corporation - Truck Group  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Mailing Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T 003-23379-00036

<u>Report period</u>			
Beginning: _____			
Ending: _____			
<u>Boiler Affected</u>	<u>Alternate Fuel</u>	Days burning alternate fuel	
		<u>From</u>	<u>To</u>
_____			
_____			
_____			
_____			

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: _____	

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

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

**Part 70 Semi-Annual Report**

Source Name: General Motors Corporation - Truck Group  
 Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
 Mailing Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
 Part 70 Permit No.: T 003-23379-00036  
 Facility: Boiler 004  
 Parameter: No. 2 fuel oil usage (Fuel Oil Sulfur Content Limit 0.49%)  
 Limit: Shall not exceed 1.1 million gallons per twelve (12) consecutive month period,  
 with compliance determined at the end of each month.

Months : \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	No. 2 Fuel Oil Usage (Million Gallons)	No. 2 Fuel Oil Usage (Million Gallons)	No. 2 Fuel Oil Usage (Million Gallons)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			
Month 4			
Month 5			
Month 6			

- No deviation occurred in this semi-annual period.
- Deviation/s occurred in this semi-annual period.  
 Deviation has been reported on: \_\_\_\_\_

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

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

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

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

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

Attach a signed certification to complete this report.

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

**Part 70 Semi-Annual Report**

Source Name: General Motors Corporation - Truck Group  
 Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
 Mailing Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
 Part 70 Permit No.: T 003-23379-00036  
 Facility: Boiler 005  
 Parameter: No. 2 fuel oil usage (Fuel Oil Sulfur Content Limit 0.49%)  
 Limit: Shall not exceed 3.2 million gallons per twelve (12) consecutive month period,  
 with compliance determined at the end of each month.

Months : \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	No. 2 Fuel Oil Usage (Million Gallons)	No. 2 Fuel Oil Usage (Million Gallons)	No. 2 Fuel Oil Usage (Million Gallons)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			
Month 4			
Month 5			
Month 6			

- No deviation occurred in this semi-annual period.
- Deviation/s occurred in this semi-annual period.  
 Deviation has been reported on: \_\_\_\_\_

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

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

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

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

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

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: General Motors Corporation - Truck Group  
Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Mailing Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
Part 70 Permit No.: T 003-23379-00036  
Facility: Entire Source Surface Coating and Cleaning Operations  
Parameter: VOC usage  
Limit: Shall not exceed 3,204 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	VOC Usage (tons)	VOC Usage (tons)	VOC Usage (tons)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

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

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

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

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: General Motors Corporation - Truck Group  
 Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
 Mailing Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
 Part 70 Permit No.: T 003-23379-00036  
 Facility: Twenty (20) natural gas-fired burners, known as MOD 1 through MOD 10 (each mod contains two burners)  
 Parameter: Natural gas usage  
 Limit: Shall not exceed six hundred ten (610) million cubic feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER : \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Natural Gas Usage (MMCF)	Natural Gas Usage (MMCF)	Natural Gas Usage (MMCF)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

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

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

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

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

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

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

Attach a signed certification to complete this report.

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

Source Name: General Motors Corporation - Truck Group  
 Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
 Mailing Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
 Part 70 Permit No.: T 003-23379-00036

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

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

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

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

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

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

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

Attach a signed certification to complete this report.

**Attachment A**  
**to Part 70 Operating Permit Renewal No. T 003-23379-00036**

General Motors Corporation - Truck Group  
12200 LaFayette Center Road, Roanoke, IN 46789

**40 CFR 60, Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam  
Generating Units**

**Source:** 72 FR 32742, June 13, 2007, unless otherwise noted.

**§ 60.40b Applicability and delegation of authority.**

(a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)).

(b) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1984, but on or before June 19, 1986, is subject to the following standards:

(1) Coal-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the particulate matter (PM) and nitrogen oxides (NO<sub>x</sub>) standards under this subpart.

(2) Coal-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are subject to the PM and NO<sub>x</sub> standards under this subpart and to the sulfur dioxide (SO<sub>2</sub>) standards under subpart D (§60.43).

(3) Oil-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the NO<sub>x</sub> standards under this subpart.

(4) Oil-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are also subject to the NO<sub>x</sub> standards under this subpart and the PM and SO<sub>2</sub> standards under subpart D (§60.42 and §60.43).

(c) Affected facilities that also meet the applicability requirements under subpart J (Standards of performance for petroleum refineries; §60.104) are subject to the PM and NO<sub>x</sub> standards under this subpart and the SO<sub>2</sub> standards under subpart J (§60.104).

(d) Affected facilities that also meet the applicability requirements under subpart E (Standards of performance for incinerators; §60.50) are subject to the NO<sub>x</sub> and PM standards under this subpart.

(e) Steam generating units meeting the applicability requirements under subpart Da (Standards of performance for electric utility steam generating units; §60.40Da) are not subject to this subpart.

(f) Any change to an existing steam generating unit for the sole purpose of combusting gases containing total reduced sulfur (TRS) as defined under §60.281 is not considered a modification under §60.14 and the steam generating unit is not subject to this subpart.

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

(1) Section 60.44b(f).

(2) Section 60.44b(g).

(3) Section 60.49b(a)(4).

(h) Any affected facility that meets the applicability requirements and is subject to subpart Ea, subpart Eb, or subpart AAAA of this part is not covered by this subpart.

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

(j) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1986 is not subject to subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators, §60.40).

(k) Any affected facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing subpart Cb or subpart BBBB of this part is not covered by this subpart.

#### **§ 60.41b Definitions.**

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

*Annual capacity factor* means the ratio between the actual heat input to a steam generating unit from the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility in a calendar year.

*Byproduct/waste* means any liquid or gaseous substance produced at chemical manufacturing plants, petroleum refineries, or pulp and paper mills (except natural gas, distillate oil, or residual oil) and combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide (CO<sub>2</sub>) levels greater than 50 percent or carbon monoxide levels greater than 10 percent are not byproduct/waste for the purpose of this subpart.

*Chemical manufacturing plants* mean industrial plants that are classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 28.

*Coal* means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, coke oven gas, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

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

*Cogeneration*, also known as combined heat and power, means a facility that simultaneously produces both electric (or mechanical) and useful thermal energy from the same primary energy source.

*Coke oven gas* means the volatile constituents generated in the gaseous exhaust during the carbonization of bituminous coal to form coke.

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

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

*Distillate oil* means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

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

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

*Emerging technology* means any SO<sub>2</sub> control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under §60.49b(a)(4).

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

*Fluidized bed combustion technology* means combustion of fuel in a bed or series of beds (including but not limited to bubbling bed units and circulating bed units) of limestone aggregate (or other sorbent materials) in which these materials are forced upward by the flow of combustion air and the gaseous products of combustion.

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

*Full capacity* means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity.

*Gaseous fuel* means any fuel that is present as a gas at ISO conditions.

*Gross output* means the gross useful work performed by the steam generated. For units generating only electricity, the gross useful work performed is the gross electrical output from the turbine/generator set. For cogeneration units, the gross useful work performed is the gross electrical or mechanical output plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output (i.e., steam delivered to an industrial process).

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

*Heat release rate* means the steam generating unit design heat input capacity (in MW or Btu/hr) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection pass tubes.

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

*High heat release rate* means a heat release rate greater than  $730,000 \text{ J/sec-m}^3$  ( $70,000 \text{ Btu/hr-ft}^3$ ).

*ISO Conditions* means a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals.

*Lignite* means a type of coal classified as lignite A or lignite B by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

*Low heat release rate* means a heat release rate of  $730,000 \text{ J/sec-m}^3$  ( $70,000 \text{ Btu/hr-ft}^3$ ) or less.

*Mass-feed stoker steam generating unit* means a steam generating unit where solid fuel is introduced directly into a retort or is fed directly onto a grate where it is combusted.

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

*Municipal-type solid waste* means refuse, more than 50 percent of which is waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials, and noncombustible materials such as glass and rock.

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

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

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

*Petroleum refinery* means industrial plants as classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 29.

*Potential sulfur dioxide emission rate* means the theoretical  $\text{SO}_2$  emissions (nanograms per joule (ng/J) or

lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

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

*Pulp and paper mills* means industrial plants that are classified by the Department of Commerce under North American Industry Classification System (NAICS) Code 322 or Standard Industrial Classification (SIC) Code 26.

*Pulverized coal-fired steam generating unit* means a steam generating unit in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the steam generating unit where it is fired in suspension. This includes both conventional pulverized coal-fired and micropulverized coal-fired steam generating units. Residual oil means crude oil, fuel oil numbers 1 and 2 that have a nitrogen content greater than 0.05 weight percent, and all fuel oil numbers 4, 5 and 6, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

*Spreader stoker steam generating unit* means a steam generating unit in which solid fuel is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

*Steam generating unit* means a device that combusts any fuel or byproduct/waste and produces steam or heats water or any other heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are defined in this subpart.

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

*Very low sulfur oil* means for units constructed, reconstructed, or modified on or before February 28, 2005, an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without SO<sub>2</sub> emission control, has a SO<sub>2</sub> emission rate equal to or less than 215 ng/J (0.5 lb/MMBtu) heat input. For units constructed, reconstructed, or modified after February 28, 2005, *very low sulfur oil* means an oil that contains no more than 0.3 weight percent sulfur or that, when combusted without SO<sub>2</sub> emission control, has a SO<sub>2</sub> emission rate equal to or less than 140 ng/J (0.32 lb/MMBtu) heat input.

*Wet flue gas desulfurization technology* means a SO<sub>2</sub> control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gas with an alkaline slurry or solution and forming a liquid material. This definition applies to devices where the aqueous liquid material product of this contact is subsequently converted to other forms. Alkaline reagents used in wet flue gas desulfurization technology include, but are not limited to, lime, limestone, and sodium.

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

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

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

(a) Except as provided in paragraphs (b), (c), (d), or (k) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) or 10 percent (0.10) of the potential SO<sub>2</sub> emission rate (90 percent reduction) and the emission limit determined according to the following formula:

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

Where:

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

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

K<sub>b</sub>= 340 ng/J (or 0.80 lb/MMBtu);

H<sub>a</sub>= Heat input from the combustion of coal, in J (MMBtu); and

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

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(b) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal refuse alone in a fluidized bed combustion steam generating unit shall cause to be discharged into the atmosphere any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) or 20 percent (0.20) of the potential SO<sub>2</sub> emission rate (80 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input. If coal or oil is fired with coal refuse, the affected facility is subject to paragraph (a) or (d) of this section, as applicable.

(c) On and after the date on which the performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that combusts coal or oil, either alone or in combination with any other fuel, and that uses an emerging technology for the control of SO<sub>2</sub> emissions, shall cause to be discharged into the atmosphere any gases that contain SO<sub>2</sub> in excess of 50 percent of the potential SO<sub>2</sub> emission rate (50 percent reduction) and that contain SO<sub>2</sub> in excess of the emission limit determined according to the following formula:

$$E_s = \frac{(K_c H_c + K_d H_d)}{(H_c + H_d)}$$

Where:

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

$K_c = 260 \text{ ng/J}$  (or 0.60 lb/MMBtu);

$K_d = 170 \text{ ng/J}$  (or 0.40 lb/MMBtu);

$H_c$  = Heat input from the combustion of coal, in J (MMBtu); and

$H_d$  = Heat input from the combustion of oil, in J (MMBtu).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels, or from the heat input derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(d) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005 and listed in paragraphs (d)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere any gases that contain  $\text{SO}_2$  in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.5 lb/MMBtu) heat input if the affected facility combusts oil other than very low sulfur oil. Percent reduction requirements are not applicable to affected facilities under paragraphs (d)(1), (2), (3) or (4) of this section.

(1) Affected facilities that have an annual capacity factor for coal and oil of 30 percent (0.30) or less and are subject to a federally enforceable permit limiting the operation of the affected facility to an annual capacity factor for coal and oil of 30 percent (0.30) or less;

(2) Affected facilities located in a noncontinental area; or

(3) Affected facilities combusting coal or oil, alone or in combination with any fuel, in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal and oil in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from the exhaust gases entering the duct burner; or

(4) The affected facility burns coke oven gas alone or in combination with natural gas or very low sulfur distillate oil.

(e) Except as provided in paragraph (f) of this section, compliance with the emission limits, fuel oil sulfur limits, and/or percent reduction requirements under this section are determined on a 30-day rolling average basis.

(f) Except as provided in paragraph (j)(2) of this section, compliance with the emission limits or fuel oil sulfur limits under this section is determined on a 24-hour average basis for affected facilities that (1) have a federally enforceable permit limiting the annual capacity factor for oil to 10 percent or less, (2) combust only very low sulfur oil, and (3) do not combust any other fuel.

(g) Except as provided in paragraph (i) of this section and §60.45b(a), the  $\text{SO}_2$  emission limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(h) Reductions in the potential  $\text{SO}_2$  emission rate through fuel pretreatment are not credited toward the percent reduction requirement under paragraph (c) of this section unless:

(1) Fuel pretreatment results in a 50 percent or greater reduction in potential  $\text{SO}_2$  emissions and

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

(i) An affected facility subject to paragraph (a), (b), or (c) of this section may combust very low sulfur oil or natural gas when the SO<sub>2</sub> control system is not being operated because of malfunction or maintenance of the SO<sub>2</sub> control system.

(j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the performance testing procedures as described in §60.45b(c) or §60.45b(d), and following the monitoring procedures as described in §60.47b(a) or §60.47b(b) to determine SO<sub>2</sub> emission rate or fuel oil sulfur content; or (2) maintaining fuel records as described in §60.49b(r).

(k)(1) Except as provided in paragraphs (k)(2), (k)(3), and (k)(4) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, natural gas, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 8 percent (0.08) of the potential SO<sub>2</sub> emission rate (92 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.

(2) Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO<sub>2</sub> emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO<sub>2</sub> emissions limit in paragraph 60.42b(k)(1).

(3) Units that are located in a noncontinental area and that combust coal or oil shall not discharge any gases that contain SO<sub>2</sub> in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.50 lb/MMBtu) heat input if the affected facility combusts oil.

(4) As an alternative to meeting the requirements under paragraph (k)(1) of this section, modified facilities that combust coal or a mixture of coal with other fuels shall not cause to be discharged into the atmosphere any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO<sub>2</sub> emission rate (90 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.

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

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

(1) 22 ng/J (0.051 lb/MMBtu) heat input, (i) If the affected facility combusts only coal, or

(ii) If the affected facility combusts coal and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

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

(3) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts coal or coal and other fuels and

- (i) Has an annual capacity factor for coal or coal and other fuels of 30 percent (0.30) or less,
  - (ii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less,
  - (iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for coal or coal and other solid fuels, and
  - (iv) Construction of the affected facility commenced after June 19, 1984, and before November 25, 1986.
- (4) An affected facility burning coke oven gas alone or in combination with other fuels not subject to a PM standard under §60.43b and not using a post-combustion technology (except a wet scrubber) for reducing PM or SO<sub>2</sub> emissions is not subject to the PM limits under §60.43b(a).
- (b) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, and that combusts oil (or mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce SO<sub>2</sub> emissions shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.
- (c) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, and that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain PM in excess of the following emission limits:
- (1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood.
  - (2) 86 ng/J (0.20 lb/MMBtu) heat input if (i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood;
- (ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for wood; and
- (iii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less.
- (d) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:
- (1) 43 ng/J (0.10 lb/MMBtu) heat input;
- (i) If the affected facility combusts only municipal-type solid waste; or
- (ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.
- (2) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and

(i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less;

(ii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less;

(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for municipal-type solid waste, or municipal-type solid waste and other fuels; and

(iv) Construction of the affected facility commenced after June 19, 1984, but on or before November 25, 1986.

(e) For the purposes of this section, the annual capacity factor is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of coal, wood, or municipal-type solid waste, and other fuels, as applicable, by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum heat input capacity.

(f) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

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

(h)(1) Except as provided in paragraphs (h)(2), (h)(3), (h)(4), and (h)(5) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input,

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

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

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

(3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a maximum heat input capacity of 73 MW (250 MMBtu/h) or less shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a maximum heat input capacity greater than 73 MW (250 MMBtu/h) shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 37 ng/J (0.085 lb/MMBtu) heat input.

(5) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.3 weight percent sulfur, coke oven gas, a mixture of these fuels, or either fuel (or a mixture of these fuels) in combination with other fuels not subject to a PM standard under §60.43b and not using a post-combustion technology (except a wet scrubber) to reduce SO<sub>2</sub> or PM emissions is not subject to the PM limits under §60.43b(h)(1).

**§ 60.44b Standard for nitrogen oxides (NOX).**

(a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO<sub>x</sub>(expressed as NO<sub>2</sub>) in excess of the following emission limits:

Fuel/steam generating unit type	Nitrogen oxide emission limits (expressed as NO <sub>2</sub> ) heat input	
	ng/J	lb/MMBTu
(1) Natural gas and distillate oil, except (4):		
(i) Low heat release rate	43	0.10
(ii) High heat release rate	86	0.20
(2) Residual oil:		
(i) Low heat release rate	130	0.30
(ii) High heat release rate	170	0.40
(3) Coal:		
(i) Mass-feed stoker	210	0.50
(ii) Spreader stoker and fluidized bed combustion	260	0.60
(iii) Pulverized coal	300	0.70
(iv) Lignite, except (v)	260	0.60
(v) Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace	340	0.80
(vi) Coal-derived synthetic fuels	210	0.50
(4) Duct burner used in a combined cycle system:		
(i) Natural gas and distillate oil	86	0.20
(ii) Residual oil	170	0.40

(b) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts mixtures of coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO<sub>x</sub> in excess of a limit determined by the use of the following formula:

$$E_n = \frac{(EL_g H_g) + (EL_o H_o) + (EL_c H_c)}{(H_g + H_o + H_c)}$$

Where:

E<sub>n</sub>= NO<sub>x</sub>emission limit (expressed as NO<sub>2</sub>), ng/J (lb/MMBtu);

EL<sub>g</sub>= Appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/MMBtu);

H<sub>g</sub>= Heat input from combustion of natural gas or distillate oil, J (MMBtu);

EL<sub>o</sub>= Appropriate emission limit from paragraph (a)(2) for combustion of residual oil, ng/J (lb/MMBtu);

H<sub>o</sub>= Heat input from combustion of residual oil, J (MMBtu);

EL<sub>c</sub>= Appropriate emission limit from paragraph (a)(3) for combustion of coal, ng/J (lb/MMBtu); and

H<sub>c</sub>= Heat input from combustion of coal, J (MMBtu).

(c) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal or oil, or a mixture of these fuels with natural gas, and wood, municipal-type solid waste, or any other fuel shall cause to be discharged into the atmosphere any gases that contain NO<sub>x</sub> in excess of the emission limit for the coal or oil, or mixtures of these fuels with natural gas combusted in the affected facility, as determined pursuant to paragraph (a) or (b) of this section, unless the affected facility has an annual capacity factor for coal or oil, or mixture of these fuels with natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, or a mixture of these fuels with natural gas.

(d) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts natural gas with wood, municipal-type solid waste, or other solid fuel, except coal, shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO<sub>x</sub> in excess of 130 ng/J (0.30 lb/MMBtu) heat input unless the affected facility has an annual capacity factor for natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for natural gas.

(e) Except as provided under paragraph (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that simultaneously combusts coal, oil, or natural gas with byproduct/waste shall cause to be discharged into the atmosphere any gases that contain NO<sub>x</sub> in excess of the emission limit determined by the following formula unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less:

$$E_n = \frac{(EL_{ng}H_{ng}) + (EL_{do}H_{do}) + (EL_cH_c)}{(H_{ng} + H_{do} + H_c)}$$

Where:

$E_n$  =  $NO_x$  emission limit (expressed as  $NO_2$ ), ng/J (lb/MMBtu);

$EL_{ng}$  = Appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/MMBtu);

$H_{ng}$  = Heat input from combustion of natural gas, distillate oil and gaseous byproduct/waste, J (MMBtu);

$EL_{ro}$  = Appropriate emission limit from paragraph (a)(2) for combustion of residual oil and/or byproduct/waste, ng/J (lb/MMBtu);

$H_{ro}$  = Heat input from combustion of residual oil, J (MMBtu);

$EL_c$  = Appropriate emission limit from paragraph (a)(3) for combustion of coal, ng/J (lb/MMBtu); and

$H_c$  = Heat input from combustion of coal, J (MMBtu).

(f) Any owner or operator of an affected facility that combusts byproduct/waste with either natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility to establish a  $NO_x$  emission limit that shall apply specifically to that affected facility when the byproduct/waste is combusted. The petition shall include sufficient and appropriate data, as determined by the Administrator, such as  $NO_x$  emissions from the affected facility, waste composition (including nitrogen content), and combustion conditions to allow the Administrator to confirm that the affected facility is unable to comply with the emission limits in paragraph (e) of this section and to determine the appropriate emission limit for the affected facility.

(1) Any owner or operator of an affected facility petitioning for a facility-specific  $NO_x$  emission limit under this section shall:

(i) Demonstrate compliance with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, by conducting a 30-day performance test as provided in §60.46b(e). During the performance test only natural gas, distillate oil, or residual oil shall be combusted in the affected facility; and

(ii) Demonstrate that the affected facility is unable to comply with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, when gaseous or liquid byproduct/waste is combusted in the affected facility under the same conditions and using the same technological system of emission reduction applied when demonstrating compliance under paragraph (f)(1)(i) of this section.

(2) The  $NO_x$  emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, shall be applicable to the affected facility until and unless the petition is approved by the Administrator. If the petition is approved by the Administrator, a facility-specific  $NO_x$  emission limit will be established at the  $NO_x$  emission level achievable when the affected facility is combusting oil or natural gas and byproduct/waste in a manner that the Administrator determines to be consistent with minimizing  $NO_x$  emissions. In lieu of amending this subpart, a letter will be sent to the facility describing the facility-specific  $NO_x$  limit. The facility shall use the compliance procedures detailed in the letter and make the letter available to the public. If the

Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

(g) Any owner or operator of an affected facility that combusts hazardous waste (as defined by 40 CFR part 261 or 40 CFR part 761) with natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility for a waiver from compliance with the NO<sub>x</sub> emission limit that applies specifically to that affected facility. The petition must include sufficient and appropriate data, as determined by the Administrator, on NO<sub>x</sub> emissions from the affected facility, waste destruction efficiencies, waste composition (including nitrogen content), the quantity of specific wastes to be combusted and combustion conditions to allow the Administrator to determine if the affected facility is able to comply with the NO<sub>x</sub> emission limits required by this section. The owner or operator of the affected facility shall demonstrate that when hazardous waste is combusted in the affected facility, thermal destruction efficiency requirements for hazardous waste specified in an applicable federally enforceable requirement preclude compliance with the NO<sub>x</sub> emission limits of this section. The NO<sub>x</sub> emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, are applicable to the affected facility until and unless the petition is approved by the Administrator. (See 40 CFR 761.70 for regulations applicable to the incineration of materials containing polychlorinated biphenyls (PCB's).) In lieu of amending this subpart, a letter will be sent to the facility describing the facility-specific NO<sub>x</sub> limit. The facility shall use the compliance procedures detailed in the letter and make the letter available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

(h) For purposes of paragraph (i) of this section, the NO<sub>x</sub> standards under this section apply at all times including periods of startup, shutdown, or malfunction.

(i) Except as provided under paragraph (j) of this section, compliance with the emission limits under this section is determined on a 30-day rolling average basis.

(j) Compliance with the emission limits under this section is determined on a 24-hour average basis for the initial performance test and on a 3-hour average basis for subsequent performance tests for any affected facilities that:

(1) Combust, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less;

(2) Have a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and

(3) Are subject to a federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less.

(k) Affected facilities that meet the criteria described in paragraphs (j)(1), (2), and (3) of this section, and that have a heat input capacity of 73 MW (250 MMBtu/hr) or less, are not subject to the NO<sub>x</sub> emission limits under this section.

(l) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction or reconstruction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO<sub>x</sub> (expressed as NO<sub>2</sub>) in excess of the following limits:

(1) If the affected facility combusts coal, oil, or natural gas, or a mixture of these fuels, or with any other fuels: A limit of 86 ng/J (0.20 lb/MMBtu) heat input unless the affected facility has an annual capacity

factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas; or

(2) If the affected facility has a low heat release rate and combusts natural gas or distillate oil in excess of 30 percent of the heat input on a 30-day rolling average from the combustion of all fuels, a limit determined by use of the following formula:

$$E_n = \frac{(0.10 \times H_{go}) + (0.20 \times H_r)}{(H_{go} + H_r)}$$

Where:

$E_n$  = NO<sub>x</sub> emission limit, (lb/MMBtu);

$H_{go}$  = 30-day heat input from combustion of natural gas or distillate oil; and

$H_r$  = 30-day heat input from combustion of any other fuel.

(3) After February 27, 2006, units where more than 10 percent of total annual output is electrical or mechanical may comply with an optional limit of 270 ng/J (2.1 lb/MWh) gross energy output, based on a 30-day rolling average. Units complying with this output-based limit must demonstrate compliance according to the procedures of §60.48Da(i) of subpart Da of this part, and must monitor emissions according to §60.49Da(c), (k), through (n) of subpart Da of this part.

#### **§ 60.45b Compliance and performance test methods and procedures for sulfur dioxide.**

(a) The SO<sub>2</sub> emission standards under §60.42b apply at all times. Facilities burning coke oven gas alone or in combination with any other gaseous fuels or distillate oil and complying with the fuel based limit under §60.42b(d) or §60.42b(k)(2) are allowed to exceed the limit 30 operating days per calendar year for by-product plant maintenance.

(b) In conducting the performance tests required under §60.8, the owner or operator shall use the methods and procedures in appendix A (including fuel certification and sampling) of this part or the methods and procedures as specified in this section, except as provided in §60.8(b). Section 60.8(f) does not apply to this section. The 30-day notice required in §60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(c) The owner or operator of an affected facility shall conduct performance tests to determine compliance with the percent of potential SO<sub>2</sub> emission rate (% P<sub>s</sub>) and the SO<sub>2</sub> emission rate (E<sub>s</sub>) pursuant to §60.42b following the procedures listed below, except as provided under paragraph (d) and (k) of this section.

(1) The initial performance test shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the SO<sub>2</sub> standards shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility.

(2) If only coal, only oil, or a mixture of coal and oil is combusted, the following procedures are used:

(i) The procedures in Method 19 of appendix A of this part are used to determine the hourly SO<sub>2</sub> emission rate (E<sub>ho</sub>) and the 30-day average emission rate (E<sub>ao</sub>). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system (CEMS) of §60.47b (a) or (b).

(ii) The percent of potential SO<sub>2</sub> emission rate (%P<sub>s</sub>) emitted to the atmosphere is computed using the following formula:

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

Where:

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

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

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

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

(i) An adjusted hourly SO<sub>2</sub> emission rate (E<sub>ho</sub><sup>o</sup>) is used in Equation 19–19 of Method 19 of appendix A of this part to compute an adjusted 30-day average emission rate (E<sub>ao</sub><sup>o</sup>). The E<sub>ho</sub><sup>o</sup> is computed using the following formula:

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

Where:

E<sub>ho</sub><sup>o</sup> = Adjusted hourly SO<sub>2</sub> emission rate, ng/J (lb/MMBtu);

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

E<sub>w</sub> = SO<sub>2</sub> concentration in fuels other than coal and oil combusted in the affected facility, as determined by the fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value E<sub>w</sub> for each fuel lot is used for each hourly average during the time that the lot is being combusted; and

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

(ii) To compute the percent of potential SO<sub>2</sub> emission rate (%P<sub>s</sub>), an adjusted %R<sub>g</sub> (%R<sub>g</sub><sup>o</sup>) is computed from the adjusted E<sub>ao</sub><sup>o</sup> from paragraph (b)(3)(i) of this section and an adjusted average SO<sub>2</sub> inlet rate (E<sub>ai</sub><sup>o</sup>) using the following formula:

$$\%R_g^o = 100 \left( 1.0 - \frac{E_{ao}^o}{E_{ai}^o} \right)$$

To compute  $E_{ai}^o$ , an adjusted hourly  $SO_2$  inlet rate ( $E_{hi}^o$ ) is used. The  $E_{hi}^o$  is computed using the following formula:

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

Where:

$E_{hi}^o$  = Adjusted hourly  $SO_2$  inlet rate, ng/J (lb/MMBtu); and

$E_{hi}$  = Hourly  $SO_2$  inlet rate, ng/J (lb/MMBtu).

(4) The owner or operator of an affected facility subject to paragraph (b)(3) of this section does not have to measure parameters  $E_w$  or  $X_k$  if the owner or operator elects to assume that  $X_k = 1.0$ . Owners or operators of affected facilities who assume  $X_k = 1.0$  shall:

(i) Determine  $\%P_s$  following the procedures in paragraph (c)(2) of this section; and

(ii) Sulfur dioxide emissions ( $E_s$ ) are considered to be in compliance with  $SO_2$  emission limits under §60.42b.

(5) The owner or operator of an affected facility that qualifies under the provisions of §60.42b(d) does not have to measure parameters  $E_w$  or  $X_k$  under paragraph (b)(3) of this section if the owner or operator of the affected facility elects to measure  $SO_2$  emission rates of the coal or oil following the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(d) Except as provided in paragraph (j) of this section, the owner or operator of an affected facility that combusts only very low sulfur oil, has an annual capacity factor for oil of 10 percent (0.10) or less, and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for oil of 10 percent (0.10) or less shall:

(1) Conduct the initial performance test over 24 consecutive steam generating unit operating hours at full load;

(2) Determine compliance with the standards after the initial performance test based on the arithmetic average of the hourly emissions data during each steam generating unit operating day if a CEMS is used, or based on a daily average if Method 6B of appendix A of this part or fuel sampling and analysis procedures under Method 19 of appendix A of this part are used.

(e) The owner or operator of an affected facility subject to §60.42b(d)(1) shall demonstrate the maximum design capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. This demonstration will be made during the initial performance test and a subsequent demonstration may be requested at any other time. If the 24-hour average firing rate for the affected facility is less than the maximum design capacity provided by the manufacturer of the affected facility, the 24-hour average firing rate shall be used to determine the capacity utilization rate for the affected facility, otherwise the maximum design capacity provided by the manufacturer is used.

(f) For the initial performance test required under §60.8, compliance with the  $SO_2$  emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for  $SO_2$  for the first 30 consecutive steam generating unit operating days, except as provided under paragraph (d) of this section. The initial performance test is the only test for which at least 30 days prior notice is required unless otherwise specified by the Administrator. The initial performance test is to be scheduled so that the first steam generating unit operating day of the 30 successive steam

generating unit operating days is completed within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility. The boiler load during the 30-day period does not have to be the maximum design load, but must be representative of future operating conditions and include at least one 24-hour period at full load.

(g) After the initial performance test required under §60.8, compliance with the SO<sub>2</sub> emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for SO<sub>2</sub> for 30 successive steam generating unit operating days, except as provided under paragraph (d). A separate performance test is completed at the end of each steam generating unit operating day after the initial performance test, and a new 30-day average emission rate and percent reduction for SO<sub>2</sub> are calculated to show compliance with the standard.

(h) Except as provided under paragraph (i) of this section, the owner or operator of an affected facility shall use all valid SO<sub>2</sub> emissions data in calculating %P<sub>s</sub> and E<sub>h<sub>o</sub></sub> under paragraph (c), of this section whether or not the minimum emissions data requirements under §60.46b are achieved. All valid emissions data, including valid SO<sub>2</sub> emission data collected during periods of startup, shutdown and malfunction, shall be used in calculating %P<sub>s</sub> and E<sub>h<sub>o</sub></sub> pursuant to paragraph (c) of this section.

(i) During periods of malfunction or maintenance of the SO<sub>2</sub> control systems when oil is combusted as provided under §60.42b(i), emission data are not used to calculate %P<sub>s</sub> or E<sub>s</sub> under §60.42b(a), (b) or (c), however, the emissions data are used to determine compliance with the emission limit under §60.42b(i).

(j) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

(k) The owner or operator of an affected facility seeking to demonstrate compliance under §§60.42b(d)(4), 60.42b(j), and 60.42b(k)(2) shall follow the applicable procedures under §60.49b(r).

#### **§ 60.46b Compliance and performance test methods and procedures for particulate matter and nitrogen oxides.**

(a) The PM emission standards and opacity limits under §60.43b apply at all times except during periods of startup, shutdown, or malfunction. The NO<sub>x</sub> emission standards under §60.44b apply at all times.

(b) Compliance with the PM emission standards under §60.43b shall be determined through performance testing as described in paragraph (d) of this section, except as provided in paragraph (i) of this section.

(c) Compliance with the NO<sub>x</sub> emission standards under §60.44b shall be determined through performance testing under paragraph (e) or (f), or under paragraphs (g) and (h) of this section, as applicable.

(d) To determine compliance with the PM emission limits and opacity limits under §60.43b, the owner or operator of an affected facility shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, using the following procedures and reference methods:

(1) Method 3B of appendix A of this part is used for gas analysis when applying Method 5 or 17 of appendix A of this part.

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

(i) Method 5 of appendix A of this part shall be used at affected facilities without wet flue gas desulfurization (FGD) systems; and

(ii) Method 17 of appendix A of this part may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (32 °F). The procedures of sections 2.1 and 2.3 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if it is used after a wet FGD system. Do not use Method 17 of appendix A of this part after wet FGD systems if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part is to be used only after wet FGD systems.

(3) Method 1 of appendix A of this part is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

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

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

(6) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rate expressed in ng/J heat input is determined using:

(i) The O<sub>2</sub> or CO<sub>2</sub> measurements and PM measurements obtained under this section;

(ii) The dry basis F factor; and

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

(7) Method 9 of appendix A of this part is used for determining the opacity of stack emissions.

(e) To determine compliance with the emission limits for NO<sub>x</sub> required under §60.44b, the owner or operator of an affected facility shall conduct the performance test as required under §60.8 using the continuous system for monitoring NO<sub>x</sub> under §60.48(b).

(1) For the initial compliance test, NO<sub>x</sub> from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NO<sub>x</sub> emission standards under §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

(2) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility which combusts coal or which combusts residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the NO<sub>x</sub> emission standards under §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 steam generating unit operating days.

(3) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity greater than 73 MW (250 MMBtu/hr) and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the NO<sub>x</sub> standards under §60.44b on a continuous basis through the use of a 30-day rolling average emission

rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub>emission data for the preceding 30 steam generating unit operating days.

(4) Following the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO<sub>x</sub>standards under §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO<sub>x</sub>emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO<sub>x</sub>emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub>emission data for the preceding 30 steam generating unit operating days.

(5) If the owner or operator of an affected facility that combusts residual oil does not sample and analyze the residual oil for nitrogen content, as specified in §60.49b(e), the requirements of §60.48b(g)(1) apply and the provisions of §60.48b(g)(2) are inapplicable.

(f) To determine compliance with the emissions limits for NO<sub>x</sub>required by §60.44b(a)(4) or §60.44b(l) for duct burners used in combined cycle systems, either of the procedures described in paragraph (f)(1) or (2) of this section may be used:

(1) The owner or operator of an affected facility shall conduct the performance test required under §60.8 as follows:

(i) The emissions rate (E) of NO<sub>x</sub>shall be computed using Equation 1 in this section:

$$E = E_{sg} + \left( \frac{H_g}{H_b} \right) (E_{sg} - E_g) \quad (\text{Eq.1})$$

Where:

E = Emissions rate of NO<sub>x</sub>from the duct burner, ng/J (lb/MMBtu) heat input;

E<sub>sg</sub>= Combined effluent emissions rate, in ng/J (lb/MMBtu) heat input using appropriate F factor as described in Method 19 of appendix A of this part;

H<sub>g</sub>= Heat input rate to the combustion turbine, in J/hr (MMBtu/hr);

H<sub>b</sub>= Heat input rate to the duct burner, in J/hr (MMBtu/hr); and

E<sub>g</sub>= Emissions rate from the combustion turbine, in ng/J (lb/MMBtu) heat input calculated using appropriate F factor as described in Method 19 of appendix A of this part.

(ii) Method 7E of appendix A of this part shall be used to determine the NO<sub>x</sub>concentrations. Method 3A or 3B of appendix A of this part shall be used to determine O<sub>2</sub>concentration.

(iii) The owner or operator shall identify and demonstrate to the Administrator's satisfaction suitable methods to determine the average hourly heat input rate to the combustion turbine and the average hourly heat input rate to the affected duct burner.

(iv) Compliance with the emissions limits under §60.44b(a)(4) or §60.44b(l) is determined by the three-run average (nominal 1-hour runs) for the initial and subsequent performance tests; or

(2) The owner or operator of an affected facility may elect to determine compliance on a 30-day rolling average basis by using the CEMS specified under §60.48b for measuring NO<sub>x</sub> and O<sub>2</sub> and meet the requirements of §60.48b. The sampling site shall be located at the outlet from the steam generating unit. The NO<sub>x</sub> emissions rate at the outlet from the steam generating unit shall constitute the NO<sub>x</sub> emissions rate from the duct burner of the combined cycle system.

(g) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall demonstrate the maximum heat input capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. The owner or operator of an affected facility shall determine the maximum heat input capacity using the heat loss method described in sections 5 and 7.3 of the ASME *Power Test Codes* 4.1 (incorporated by reference, see §60.17). This demonstration of maximum heat input capacity shall be made during the initial performance test for affected facilities that meet the criteria of §60.44b(j). It shall be made within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of each facility, for affected facilities meeting the criteria of §60.44b(k). Subsequent demonstrations may be required by the Administrator at any other time. If this demonstration indicates that the maximum heat input capacity of the affected facility is less than that stated by the manufacturer of the affected facility, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the affected facility. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

(h) The owner or operator of an affected facility described in §60.44b(j) that has a heat input capacity greater than 73 MW (250 MMBtu/hr) shall:

(1) Conduct an initial performance test as required under §60.8 over a minimum of 24 consecutive steam generating unit operating hours at maximum heat input capacity to demonstrate compliance with the NO<sub>x</sub> emission standards under §60.44b using Method 7, 7A, 7E of appendix A of this part, or other approved reference methods; and

(2) Conduct subsequent performance tests once per calendar year or every 400 hours of operation (whichever comes first) to demonstrate compliance with the NO<sub>x</sub> emission standards under §60.44b over a minimum of 3 consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, 7E of appendix A of this part, or other approved reference methods.

(i) The owner or operator of an affected facility seeking to demonstrate compliance under paragraph §60.43b(h)(5) shall follow the applicable procedures under §60.49b(r).

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

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

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

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

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

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

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

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

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

(ii) [Reserved]

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

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

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

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

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

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

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

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

**§ 60.47b Emission monitoring for sulfur dioxide.**

(a) Except as provided in paragraphs (b), (f), and (h) of this section, the owner or operator of an affected facility subject to the SO<sub>2</sub> standards under §60.42b shall install, calibrate, maintain, and operate CEMS for measuring SO<sub>2</sub> concentrations and either O<sub>2</sub> or CO<sub>2</sub> concentrations and shall record the output of the systems. For units complying with the percent reduction standard, the SO<sub>2</sub> and either O<sub>2</sub> or CO<sub>2</sub> concentrations shall both be monitored at the inlet and outlet of the SO<sub>2</sub> control device. If the owner or operator has installed and certified SO<sub>2</sub> and O<sub>2</sub> or CO<sub>2</sub> CEMS according to the requirements of §75.20(c)(1) of this chapter and appendix A to part 75 of this chapter, and is continuing to meet the ongoing quality assurance requirements of §75.21 of this chapter and appendix B to part 75 of this chapter, those CEMS may be used to meet the requirements of this section, provided that:

(1) When relative accuracy testing is conducted, SO<sub>2</sub> concentration data and CO<sub>2</sub> (or O<sub>2</sub>) data are collected simultaneously; and

(2) In addition to meeting the applicable SO<sub>2</sub> and CO<sub>2</sub> (or O<sub>2</sub>) relative accuracy specifications in Figure 2 of appendix B to part 75 of this chapter, the relative accuracy (RA) standard in section 13.2 of Performance Specification 2 in appendix B to this part is met when the RA is calculated on a lb/MMBtu basis; and

(3) The reporting requirements of §60.49b are met. SO<sub>2</sub> and CO<sub>2</sub> (or O<sub>2</sub>) data used to meet the requirements of §60.49b shall not include substitute data values derived from the missing data procedures in subpart D of part 75 of this chapter, nor shall the SO<sub>2</sub> data have been bias adjusted according to the procedures of part 75 of this chapter.

(b) As an alternative to operating CEMS as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO<sub>2</sub> emissions and percent reduction by:

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

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

(3) A daily SO<sub>2</sub> emission rate, E<sub>D</sub>, shall be determined using the procedure described in Method 6A of appendix A of this part, section 7.6.2 (Equation 6A-8) and stated in ng/J (lb/MMBtu) heat input.

(4) The mean 30-day emission rate is calculated using the daily measured values in ng/J (lb/MMBtu) for 30 successive steam generating unit operating days using equation 19-20 of Method 19 of appendix A of this part.

(c) The owner or operator of an affected facility shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive boiler operating days. If this minimum data

requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator or the reference methods and procedures as described in paragraph (b) of this section.

(d) The 1-hour average SO<sub>2</sub> emission rates measured by the CEMS required by paragraph (a) of this section and required under §60.13(h) is expressed in ng/J or lb/MMBtu heat input and is used to calculate the average emission rates under §60.42(b). Each 1-hour average SO<sub>2</sub> emission rate must be based on 30 or more minutes of steam generating unit operation. The hourly averages shall be calculated according to §60.13(h)(2). Hourly SO<sub>2</sub> emission rates are not calculated if the affected facility is operated less than 30 minutes in a given clock hour and are not counted toward determination of a steam generating unit operating day.

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

(1) Except as provided for in paragraph (e)(4) of this section, all CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Except as provided for in paragraph (e)(4) of this section, quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities combusting coal or oil, alone or in combination with other fuels, the span value of the SO<sub>2</sub> CEMS at the inlet to the SO<sub>2</sub> control device is 125 percent of the maximum estimated hourly potential SO<sub>2</sub> emissions of the fuel combusted, and the span value of the CEMS at the outlet to the SO<sub>2</sub> control device is 50 percent of the maximum estimated hourly potential SO<sub>2</sub> emissions of the fuel combusted. Alternatively, SO<sub>2</sub> span values determined according to section 2.1.1 in appendix A to part 75 of this chapter may be used.

(4) As an alternative to meeting the requirements of paragraphs (e)(1) and (e)(2) of this section, the owner or operator may elect to implement the following alternative data accuracy assessment procedures:

(i) For all required CO<sub>2</sub> and O<sub>2</sub> monitors and for SO<sub>2</sub> and NO<sub>x</sub> monitors with span values less than 100 ppm, the daily calibration error test and calibration adjustment procedures described in sections 2.1.1 and 2.1.3 of appendix B to part 75 of this chapter may be followed instead of the CD assessment procedures in Procedure 1, section 4.1 of appendix F to this part. If this option is selected, the data validation and out-of-control provisions in sections 2.1.4 and 2.1.5 of appendix B to part 75 of this chapter shall be followed instead of the excessive CD and out-of-control criteria in Procedure 1, section 4.3 of appendix F to this part. For the purposes of data validation under this subpart, the excessive CD and out-of-control criteria in Procedure 1, section 4.3 of appendix F to this part shall apply to SO<sub>2</sub> and NO<sub>x</sub> span values less than 100 ppm;

(ii) For all required CO<sub>2</sub> and O<sub>2</sub> monitors and for SO<sub>2</sub> and NO<sub>x</sub> monitors with span values greater than 30 ppm, quarterly linearity checks may be performed in accordance with section 2.2.1 of appendix B to part 75 of this chapter, instead of performing the cylinder gas audits (CGAs) described in Procedure 1, section 5.1.2 of appendix F to this part. If this option is selected: The frequency of the linearity checks shall be as specified in section 2.2.1 of appendix B to part 75 of this chapter; the applicable linearity specifications in section 3.2 of appendix A to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.2.3 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.2.4 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the cylinder gas audits described in Procedure 1, section 5.1.2 of appendix F to this part shall be performed for SO<sub>2</sub> and NO<sub>x</sub> span values less than or equal to 30 ppm; and

(iii) For SO<sub>2</sub>, CO<sub>2</sub>, and O<sub>2</sub> monitoring systems and for NO<sub>x</sub> emission rate monitoring systems, RATAs may be performed in accordance with section 2.3 of appendix B to part 75 of this chapter instead of following the procedures described in Procedure 1, section 5.1.1 of appendix F to this part. If this option is selected: The frequency of each RATA shall be as specified in section 2.3.1 of appendix B to part 75 of this chapter; the applicable relative accuracy specifications shown in Figure 2 in appendix B to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.3.2 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.3.3 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the relative accuracy specification in section 13.2 of Performance Specification 2 in appendix B to this part shall be met on a lb/MMBtu basis for SO<sub>2</sub> (regardless of the SO<sub>2</sub> emission level during the RATA), and for NO<sub>x</sub> when the average NO<sub>x</sub> emission rate measured by the reference method during the RATA is less than 0.100 lb/MMBtu.

(f) The owner or operator of an affected facility that combusts very low sulfur oil or is demonstrating compliance under §60.45b(k) is not subject to the emission monitoring requirements under paragraph (a) of this section if the owner or operator maintains fuel records as described in §60.49b(r).

**§ 60.48b Emission monitoring for particulate matter and nitrogen oxides.**

(a) Except as provided in paragraph (j) of this section, the owner or operator of an affected facility subject to the opacity standard under §60.43b shall install, calibrate, maintain, and operate a CEMS for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.

(b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to a NO<sub>x</sub> standard under §60.44b shall comply with either paragraphs (b)(1) or (b)(2) of this section.

(1) Install, calibrate, maintain, and operate CEMS for measuring NO<sub>x</sub> and O<sub>2</sub> (or CO<sub>2</sub>) emissions discharged to the atmosphere, and shall record the output of the system; or

(2) If the owner or operator has installed a NO<sub>x</sub> emission rate CEMS to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of §60.49b. Data reported to meet the requirements of §60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.

(c) The CEMS required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(d) The 1-hour average NO<sub>x</sub> emission rates measured by the continuous NO<sub>x</sub> monitor required by paragraph (b) of this section and required under §60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.44b. The 1-hour averages shall be calculated using the data points required under §60.13(h)(2).

(e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

(1) For affected facilities combusting coal, wood or municipal-type solid waste, the span value for a continuous monitoring system for measuring opacity shall be between 60 and 80 percent.

(2) For affected facilities combusting coal, oil, or natural gas, the span value for NO<sub>x</sub> is determined using one of the following procedures:

(i) Except as provided under paragraph (e)(2)(ii) of this section, NO<sub>x</sub> span values shall be determined as follows:

Fuel	Span values for NO <sub>x</sub> (ppm)
Natural gas	500.
Oil	500.
Coal	1,000.
Mixtures	500 (x + y) + 1,000z.

Where:

x = Fraction of total heat input derived from natural gas;

y = Fraction of total heat input derived from oil; and

z = Fraction of total heat input derived from coal.

(ii) As an alternative to meeting the requirements of paragraph (e)(2)(i) of this section, the owner or operator of an affected facility may elect to use the NO<sub>x</sub> span values determined according to section 2.1.2 in appendix A to part 75 of this chapter.

(3) All span values computed under paragraph (e)(2)(i) of this section for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm. Span values computed under paragraph (e)(2)(ii) of this section shall be rounded off according to section 2.1.2 in appendix A to part 75 of this chapter.

(f) When NO<sub>x</sub> emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of appendix A of this part, Method 7A of appendix A of this part, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

(g) The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less, and that has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall:

(1) Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of this section; or

(2) Monitor steam generating unit operating conditions and predict NO<sub>x</sub> emission rates as specified in a plan submitted pursuant to §60.49b(c).

(h) The owner or operator of a duct burner, as described in §60.41b, that is subject to the NO<sub>x</sub> standards of §60.44b(a)(4) or §60.44b(l) is not required to install or operate a continuous emissions monitoring system to measure NO<sub>x</sub> emissions.

(i) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) is not required to install or operate a CEMS for measuring NO<sub>x</sub> emissions.

(j) The owner or operator of an affected facility that meets the conditions in either paragraph (j)(1), (2), (3), (4), or (5) of this section is not required to install or operate a CEMS for measuring opacity if:

(1) The affected facility uses a PM CEMS to monitor PM emissions; or

(2) The affected facility burns only liquid (excluding residual oil) or gaseous fuels with potential SO<sub>2</sub> emissions rates of 26 ng/J (0.060 lb/MMBtu) or less and does not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions. The owner or operator must maintain fuel records of the sulfur content of the fuels burned, as described under §60.49b(r); or

(3) The affected facility burns coke oven gas alone or in combination with fuels meeting the criteria in paragraph (j)(2) of this section and does not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions; or

(4) The affected facility does not use post-combustion technology (except a wet scrubber) for reducing PM, SO<sub>2</sub>, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a steam generating unit operating day average basis. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (j)(4)(i) through (iv) of this section.

(i) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (j)(4)(i)(A) through (D) of this section.

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

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

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

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

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

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

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

(5) The affected facility burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the appropriate delegated permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard.

(k) Owners or operators complying with the PM emission limit by using a PM CEMS monitor instead of monitoring opacity must calibrate, maintain, and operate a CEMS, and record the output of the system, for PM emissions discharged to the atmosphere as specified in §60.46b(j). The CEMS specified in paragraph §60.46b(j) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

#### **§ 60.49b Reporting and recordkeeping requirements.**

(a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include:

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

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §§60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i);

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

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

(b) The owner or operator of each affected facility subject to the SO<sub>2</sub>, PM, and/or NO<sub>x</sub> emission limits under §§60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of this part. The owner or operator of each affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.

(c) The owner or operator of each affected facility subject to the NO<sub>x</sub> standard of §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under §60.48b(g)(2) and the records to be maintained under §60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the owner or operator shall maintain records

of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:

(1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO<sub>x</sub> emission rates ( *i.e.* , ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion ( *i.e.* , the ratio of primary air to secondary and/or tertiary air) and the level of excess air ( *i.e.* , flue gas O<sub>2</sub> level);

(2) Include the data and information that the owner or operator used to identify the relationship between NO<sub>x</sub> emission rates and these operating conditions; and

(3) Identify how these operating conditions, including steam generating unit load, will be monitored under §60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under §60.49b(j).

(d) The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

(e) For an affected facility that combusts residual oil and meets the criteria under §§60.46b(e)(4), 60.44b(j), or (k), the owner or operator shall maintain records of the nitrogen content of the residual oil combusted in the affected facility and calculate the average fuel nitrogen content for the reporting period. The nitrogen content shall be determined using ASTM Method D4629 (incorporated by reference, see §60.17), or fuel suppliers. If residual oil blends are being combusted, fuel nitrogen specifications may be prorated based on the ratio of residual oils of different nitrogen content in the fuel blend.

(f) For facilities subject to the opacity standard under §60.43b, the owner or operator shall maintain records of opacity.

(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the NO<sub>x</sub> standards under §60.44b shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date;

(2) The average hourly NO<sub>x</sub> emission rates (expressed as NO<sub>2</sub>) (ng/J or lb/MMBtu heat input) measured or predicted;

(3) The 30-day average NO<sub>x</sub> emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;

(4) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

(7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

(8) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(h) The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of this section is required to submit excess emission reports for any excess emissions that occurred during the reporting period.

(1) Any affected facility subject to the opacity standards under §60.43b(e) or to the operating parameter monitoring requirements under §60.13(i)(1).

(2) Any affected facility that is subject to the NO<sub>x</sub> standard of §60.44b, and that:

(i) Combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less; or

(ii) Has a heat input capacity of 73 MW (250 MMBtu/hr) or less and is required to monitor NO<sub>x</sub> emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).

(3) For the purpose of §60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under §60.43b(f).

(4) For purposes of §60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average NO<sub>x</sub> emission rate, as determined under §60.46b(e), that exceeds the applicable emission limits in §60.44b.

(i) The owner or operator of any affected facility subject to the continuous monitoring requirements for NO<sub>x</sub> under §60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section.

(j) The owner or operator of any affected facility subject to the SO<sub>2</sub> standards under §60.42b shall submit reports.

(k) For each affected facility subject to the compliance and performance testing requirements of §60.45b and the reporting requirement in paragraph (j) of this section, the following information shall be reported to the Administrator:

(1) Calendar dates covered in the reporting period;

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

- (3) Each 30-day average percent reduction in SO<sub>2</sub> emissions calculated during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken;
  - (4) Identification of the steam generating unit operating days that coal or oil was combusted and for which SO<sub>2</sub> or diluent (O<sub>2</sub> or CO<sub>2</sub>) data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken;
  - (5) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit;
  - (6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
  - (7) Identification of times when hourly averages have been obtained based on manual sampling methods;
  - (8) Identification of the times when the pollutant concentration exceeded full span of the CEMS;
  - (9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3;
  - (10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part; and
  - (11) The annual capacity factor of each fired as provided under paragraph (d) of this section.
- (I) For each affected facility subject to the compliance and performance testing requirements of §60.45b(d) and the reporting requirements of paragraph (j) of this section, the following information shall be reported to the Administrator:
- (1) Calendar dates when the facility was in operation during the reporting period;
  - (2) The 24-hour average SO<sub>2</sub> emission rate measured for each steam generating unit operating day during the reporting period that coal or oil was combusted, ending in the last 24-hour period in the quarter; reasons for noncompliance with the emission standards; and a description of corrective actions taken;
  - (3) Identification of the steam generating unit operating days that coal or oil was combusted for which SO<sub>2</sub> or diluent (O<sub>2</sub> or CO<sub>2</sub>) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and description of corrective action taken;
  - (4) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit;
  - (5) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;
  - (6) Identification of times when hourly averages have been obtained based on manual sampling methods;
  - (7) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(8) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

(9) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Procedure 1 of appendix F 1 of this part. If the owner or operator elects to implement the alternative data assessment procedures described in §§60.47b(e)(4)(i) through (e)(4)(iii), each data assessment report shall include a summary of the results of all of the RATAs, linearity checks, CGAs, and calibration error or drift assessments required by §§60.47b(e)(4)(i) through (e)(4)(iii).

(m) For each affected facility subject to the SO<sub>2</sub> standards under §60.42(b) for which the minimum amount of data required under §60.47b(f) were not obtained during the reporting period, the following information is reported to the Administrator in addition to that required under paragraph (k) of this section:

(1) The number of hourly averages available for outlet emission rates and inlet emission rates;

(2) The standard deviation of hourly averages for outlet emission rates and inlet emission rates, as determined in Method 19 of appendix A of this part, section 7;

(3) The lower confidence limit for the mean outlet emission rate and the upper confidence limit for the mean inlet emission rate, as calculated in Method 19 of appendix A of this part, section 7; and

(4) The ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as determined in Method 19 of appendix A of this part, section 7.

(n) If a percent removal efficiency by fuel pretreatment ( *i.e.* , %R<sub>f</sub>) is used to determine the overall percent reduction ( *i.e.* , %R<sub>o</sub>) under §60.45b, the owner or operator of the affected facility shall submit a signed statement with the report.

(1) Indicating what removal efficiency by fuel pretreatment ( *i.e.* , %R<sub>f</sub>) was credited during the reporting period;

(2) Listing the quantity, heat content, and date each pre-treated fuel shipment was received during the reporting period, the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the reporting period;

(3) Documenting the transport of the fuel from the fuel pretreatment facility to the steam generating unit; and

(4) Including a signed statement from the owner or operator of the fuel pretreatment facility certifying that the percent removal efficiency achieved by fuel pretreatment was determined in accordance with the provisions of Method 19 of appendix A of this part and listing the heat content and sulfur content of each fuel before and after fuel pretreatment.

(o) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.

(p) The owner or operator of an affected facility described in §60.44b(j) or (k) shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date;

(2) The number of hours of operation; and

(3) A record of the hourly steam load.

(q) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator a report containing:

(1) The annual capacity factor over the previous 12 months;

(2) The average fuel nitrogen content during the reporting period, if residual oil was fired; and

(3) If the affected facility meets the criteria described in §60.44b(j), the results of any NO<sub>x</sub>emission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last NO<sub>x</sub>emission test.

(r) The owner or operator of an affected facility who elects to use the fuel based compliance alternatives in §60.42b or §60.43b shall either:

(1) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under §60.42b(j)(2) or §60.42b(k)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier that certify that the oil meets the definition of distillate oil as defined in §60.41b and the applicable sulfur limit. For the purposes of this section, the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition and/or pipeline quality natural gas was combusted in the affected facility during the reporting period; or

(2) The owner or operator of an affected facility who elects to demonstrate compliance based on fuel analysis in §60.42b or §60.43b shall develop and submit a site-specific fuel analysis plan to the Administrator for review and approval no later than 60 days before the date you intend to demonstrate compliance. Each fuel analysis plan shall include a minimum initial requirement of weekly testing and each analysis report shall contain, at a minimum, the following information:

(i) The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input;

(ii) The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For distillate oil and natural gas a fuel receipt or tariff sheet is acceptable;

(iii) The ratio of different fuels in the mixture; and

(iv) The owner or operator can petition the Administrator to approve monthly or quarterly sampling in place of weekly sampling.

(s) Facility specific NO<sub>x</sub>standard for Cytex Industries Fortier Plant's C.AOG incinerator located in Westwego, Louisiana:

(1) *Definitions* .

*Oxidation zone* is defined as the portion of the C.AOG incinerator that extends from the inlet of the oxidizing zone combustion air to the outlet gas stack.

*Reducing zone* is defined as the portion of the C.AOG incinerator that extends from the burner section to the inlet of the oxidizing zone combustion air.

*Total inlet air* is defined as the total amount of air introduced into the C.AOG incinerator for combustion of natural gas and chemical by-product waste and is equal to the sum of the air flow into the reducing zone and the air flow into the oxidation zone.

(2) *Standard for nitrogen oxides* . (i) When fossil fuel alone is combusted, the NO<sub>x</sub>emission limit for fossil fuel in §60.44b(a) applies.

(ii) When natural gas and chemical by-product waste are simultaneously combusted, the NO<sub>x</sub>emission limit is 289 ng/J (0.67 lb/MMBtu) and a maximum of 81 percent of the total inlet air provided for combustion shall be provided to the reducing zone of the C.AOG incinerator.

(3) *Emission monitoring* . (i) The percent of total inlet air provided to the reducing zone shall be determined at least every 15 minutes by measuring the air flow of all the air entering the reducing zone and the air flow of all the air entering the oxidation zone, and compliance with the percentage of total inlet air that is provided to the reducing zone shall be determined on a 3-hour average basis.

(ii) The NO<sub>x</sub>emission limit shall be determined by the compliance and performance test methods and procedures for NO<sub>x</sub>in §60.46b(i).

(iii) The monitoring of the NO<sub>x</sub>emission limit shall be performed in accordance with §60.48b.

(4) *Reporting and recordkeeping requirements* . (i) The owner or operator of the C.AOG incinerator shall submit a report on any excursions from the limits required by paragraph (a)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.

(ii) The owner or operator of the C.AOG incinerator shall keep records of the monitoring required by paragraph (a)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the C.AOG incinerator shall perform all the applicable reporting and recordkeeping requirements of this section.

(t) Facility-specific NO<sub>x</sub>standard for Rohm and Haas Kentucky Incorporated's Boiler No. 100 located in Louisville, Kentucky:

(1) *Definitions* .

*Air ratio control damper* is defined as the part of the low NO<sub>x</sub>burner that is adjusted to control the split of total combustion air delivered to the reducing and oxidation portions of the combustion flame.

*Flue gas recirculation line* is defined as the part of Boiler No. 100 that recirculates a portion of the boiler flue gas back into the combustion air.

(2) *Standard for nitrogen oxides* . (i) When fossil fuel alone is combusted, the NO<sub>x</sub>emission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO<sub>x</sub>emission limit is 473 ng/J (1.1 lb/MMBtu), and the air ratio control damper tee handle shall be at a minimum of 5 inches (12.7 centimeters) out of the boiler, and the flue gas recirculation line shall be operated at a minimum of 10 percent open as indicated by its valve opening position indicator.

(3) *Emission monitoring for nitrogen oxides* . (i) The air ratio control damper tee handle setting and the flue gas recirculation line valve opening position indicator setting shall be recorded during each 8-hour operating shift.

(ii) The NO<sub>x</sub> emission limit shall be determined by the compliance and performance test methods and procedures for NO<sub>x</sub> in §60.46b.

(iii) The monitoring of the NO<sub>x</sub> emission limit shall be performed in accordance with §60.48b.

(4) *Reporting and recordkeeping requirements*. (i) The owner or operator of Boiler No. 100 shall submit a report on any excursions from the limits required by paragraph (b)(2) of this section to the Administrator with the quarterly report required by §60.49b(i).

(ii) The owner or operator of Boiler No. 100 shall keep records of the monitoring required by paragraph (b)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of Boiler No. 100 shall perform all the applicable reporting and recordkeeping requirements of §60.49b.

(u) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia*. (1) This paragraph (u) applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site") and only to the natural gas-fired boilers installed as part of the powerhouse conversion required pursuant to 40 CFR 52.2454(g). The requirements of this paragraph shall apply, and the requirements of §§60.40b through 60.49b(t) shall not apply, to the natural gas-fired boilers installed pursuant to 40 CFR 52.2454(g).

(i) The site shall equip the natural gas-fired boilers with low NO<sub>x</sub> technology.

(ii) The site shall install, calibrate, maintain, and operate a continuous monitoring and recording system for measuring NO<sub>x</sub> emissions discharged to the atmosphere and opacity using a continuous emissions monitoring system or a predictive emissions monitoring system.

(iii) Within 180 days of the completion of the powerhouse conversion, as required by 40 CFR 52.2454, the site shall perform a performance test to quantify criteria pollutant emissions.

(2) [Reserved]

(v) The owner or operator of an affected facility may submit electronic quarterly reports for SO<sub>2</sub> and/or NO<sub>x</sub> and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of this section. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

(w) The reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

(x) Facility-specific NO<sub>x</sub> standard for Weyerhaeuser Company's No. 2 Power Boiler located in New Bern, North Carolina:

(1) *Standard for nitrogen oxides*. (i) When fossil fuel alone is combusted, the NO<sub>x</sub> emission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO<sub>x</sub> emission limit is 215 ng/J (0.5 lb/MMBtu).

(2) *Emission monitoring for nitrogen oxides*. (i) The NO<sub>x</sub> emissions shall be determined by the compliance and performance test methods and procedures for NO<sub>x</sub> in §60.46b.

(ii) The monitoring of the NO<sub>x</sub> emissions shall be performed in accordance with §60.48b.

(3) *Reporting and recordkeeping requirements*. (i) The owner or operator of the No. 2 Power Boiler shall submit a report on any excursions from the limits required by paragraph (x)(2) of this section to the Administrator with the quarterly report required by §60.49b(i).

(ii) The owner or operator of the No. 2 Power Boiler shall keep records of the monitoring required by paragraph (x)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the No. 2 Power Boiler shall perform all the applicable reporting and recordkeeping requirements of §60.49b.

(y) Facility-specific NO<sub>x</sub> standard for INEOS USA's AOGI located in Lima, Ohio:

(1) *Standard for NO<sub>x</sub>*. (i) When fossil fuel alone is combusted, the NO<sub>x</sub> emission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical byproduct/waste are simultaneously combusted, the NO<sub>x</sub> emission limit is 645 ng/J (1.5 lb/MMBtu).

(2) *Emission monitoring for NO<sub>x</sub>*. (i) The NO<sub>x</sub> emissions shall be determined by the compliance and performance test methods and procedures for NO<sub>x</sub> in §60.46b.

(ii) The monitoring of the NO<sub>x</sub> emissions shall be performed in accordance with §60.48b.

(3) *Reporting and recordkeeping requirements*. (i) The owner or operator of the AOGI shall submit a report on any excursions from the limits required by paragraph (y)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.

(ii) The owner or operator of the AOGI shall keep records of the monitoring required by paragraph (y)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the AOGI shall perform all the applicable reporting and recordkeeping requirements of this section.

**Attachment B**  
**to Part 70 Operating Permit Renewal No. T 003-23379-00036**

General Motors Corporation - Truck Group  
12200 LaFayette Center Road, Roanoke, IN 46789

**40 CFR 60, 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),

$C_{rk}$ =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

$\frac{\textit{kilograms of VOC}}{\textit{liter of applied solids}}$ ,

$Q_{aj}$ =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

$\frac{\text{liter solids}}{\text{liter coating}}$ , 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)  $0.17 \times 350^{(0.160 - R_T)}$  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:

$$M_o + M_d = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj}$$

[ $\sum L_{dj} D_{dj}$ ] 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 ( / ) 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:

$$T = \frac{\sum_{i=1}^n TV_i L_{ci}}{\sum_{i=1}^p L_s}$$

(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<sub>T</sub>) 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:

$$F = \frac{\sum_{i=1}^n Q_{bi} C_{bi}}{\sum_{i=1}^n Q_{bi} C_{bi} + \sum_{k=1}^p Q_{fk} C_{fk}}$$

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  $\pm 5$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 2.5$  °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 required 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)(i)(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)(i) (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 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 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 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 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 progress 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 C**  
**to Part 70 Operating Permit Renewal No. T 003-23379-00036**

General Motors Corporation - Truck Group  
12200 LaFayette Center Road, Roanoke, IN 46789

**40 CFR 63, 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:

$$C_{avg,as} = \frac{\sum_{j=1}^r (Vol_{as,j})(D_{as,j})(W_{as,j})}{\sum_{j=1}^r (Vol_{as,j})(D_{as,j})} \quad (Eq. 1)$$

Where:

$C_{avg,as}$  = Mass average organic HAP content of adhesives and sealer materials used, kg/kg.

$Vol_{as,j}$  = Volume of adhesive or sealer material, j, used, liters.

$D_{as,j}$  = Density of adhesive or sealer material, j, used, kg per liter.

$W_{as,j}$  = Mass fraction of organic HAP in adhesive or sealer material, j, kg/kg.

r = Number of adhesive and sealer materials used.

(2) Calculate the mass average organic HAP content of deadener materials used in the initial compliance period using Equation 2 of this section:

$$C_{avg,d} = \frac{\sum_{m=1}^s (Vol_{d,m})(D_{d,m})(W_{d,m})}{\sum_{m=1}^s (Vol_{d,m})(D_{d,m})} \quad (Eq. 2)$$

Where:

$C_{avg,d}$  = Mass average organic HAP content of deadener material used, kg/kg.

$Vol_{d,m}$  = Volume of deadener material, m, used, liters.

$D_{d,m}$  = Density of deadener material, m, used, kg per liter.

$W_{d,m}$  = Mass fraction of organic HAP in deadener material, m, kg/kg.

s = Number of deadener materials used.

(e) *Compliance demonstration.* The mass average organic HAP content for the compliance period must be less than or equal to the applicable emission limit in §63.3090(c) and (d) or §63.3091(c) and (d). You must keep all records as required by §§63.3130 and 63.3131. As part of the Notification of Compliance Status required by §63.3110, you must submit a statement that the coating operations were in compliance with the emission limitations during the initial compliance period because the mass average organic HAP content was less than or equal to the applicable emission limits in §63.3090(c) and (d) or §63.3091(c) and (d), determined according to this section.

### § 63.3152 How do I demonstrate continuous compliance with the emission limitations?

(a) To demonstrate continuous compliance, the mass average organic HAP content for each compliance period, determined according to §63.3151(a) through (d), must be less than or equal to the applicable emission limit in §63.3090(c) and (d) or §63.3091(c) and (d). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in §63.3150 is a compliance period consisting of that month.

(b) If the mass average organic HAP emission content for any compliance period exceeds the applicable emission limit in §63.3090(c) and (d) or §63.3091(c) and (d), this is a deviation from the emission limitations for that compliance period and must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(5).

(c) You must maintain records as specified in §§63.3130 and 63.3131.

## **Compliance Requirements for the Combined Electrodeposition Primer, Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Limitations**

### **§ 63.3160 By what date must I conduct performance tests and other initial compliance demonstrations?**

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

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in §63.3083. You must conduct a performance test of each capture system and add-on control device according to §§63.3164 through 63.3166 and establish the operating limits required by §63.3093 no later than 180 days after the applicable compliance date specified in §63.3083.

(2) You must develop and begin implementing the work practice plans required by §63.3094(b) and (c) no later than the compliance date specified in §63.3083.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.3161. The initial compliance period begins on the applicable compliance date specified in §63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. You must determine the mass of organic HAP emissions and volume of coating solids deposited in the initial compliance period. The initial compliance demonstration includes the results of emission capture system and add-on control device performance tests conducted according to §§63.3164 through 63.3166; supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limit in §63.3090(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.3168; and documentation of whether you developed and implemented the work practice plans required by §63.3094(b) and (c).

(4) You do not need to comply with the operating limits for the emission capture system and add-on control device required by §63.3093 until after you have completed the performance tests specified in paragraph (a)(1) of this section. Instead, you must maintain a log detailing the operation and maintenance of the emission capture system, add-on control device, and CPMS during the period between the compliance date and the performance test. You must begin complying with the operating limits for your affected source on the date you complete the performance tests specified in paragraph (a)(1) of this section.

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

(1) All emission capture systems, add-on control devices, and CPMS must be installed and operating no later than the applicable compliance date specified in §63.3083. You must conduct a performance test of each capture system and add-on control device according to the procedures in §§63.3164 through 63.3166 and establish the operating limits required by §63.3093 no later than the compliance date specified in §63.3083.

(2) You must develop and begin implementing the work practice plans required by §63.3094(b) and (c) no later than the compliance date specified in §63.3083.

(3) You must complete the initial compliance demonstration for the initial compliance period according to the requirements of §63.3161. The initial compliance period begins on the applicable compliance date specified in §63.3083 and ends on the last day of the month following the compliance date. If the compliance date occurs on any day other than the first day of a month, then the initial compliance period extends through the end of that month plus the next month. You must determine the mass of organic HAP emissions and volume of coating solids deposited during the initial compliance period. The initial compliance demonstration includes

the results of emission capture system and add-on control device performance tests conducted according to §§63.3164 through 63.3166; supporting documentation showing that during the initial compliance period the organic HAP emission rate was equal to or less than the emission limits in §63.3091(a); the operating limits established during the performance tests and the results of the continuous parameter monitoring required by §63.3168; and documentation of whether you developed and implemented the work practice plans required by §63.3094(b) and (c).

(c) You are not required to conduct an initial performance test to determine capture efficiency or destruction efficiency of a capture system or control device if you receive approval to use the results of a performance test that has been previously conducted on that capture system (either a previous stack test or a previous panel test) or control device. You are not required to conduct an initial test to determine transfer efficiency if you receive approval to use the results of a test that has been previously conducted. Any such previous tests must meet the conditions described in paragraphs (c)(1) through (3) of this section.

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

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

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

#### **§ 63.3161 How do I demonstrate initial compliance?**

(a) You must meet all of the requirements of this section to demonstrate initial compliance. To demonstrate initial compliance, the organic HAP emissions from the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) must meet the applicable emission limitation in §63.3090(a) or §63.3091(a).

(b) *Compliance with operating limits.* Except as provided in §63.3160(a)(4), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by §63.3093, using the procedures specified in §§63.3167 and 63.3168.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plans required by §63.3094(b) and (c) during the initial compliance period, as specified in §63.3130.

(d) *Compliance with emission limits.* You must follow the procedures in paragraphs (e) through (o) of this section to demonstrate compliance with the applicable emission limit in §63.3090(a) or §63.3091(a). You may also use the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22) in making this demonstration.

(e) *Determine the mass fraction of organic HAP, density, and volume used.* Follow the procedures specified in §63.3151(a) through (c) to determine the mass fraction of organic HAP and the density and volume of each coating and thinner used during each month. For electrodeposition primer operations, the mass fraction of organic HAP, density, and volume used must be determined for each material added to the tank or system during each month.

(f) *Determine the volume fraction of coating solids for each coating.* You must determine the volume fraction of coating solids (liter of coating solids per liter of coating) for each coating used during the compliance period by a test or by information provided by the supplier or the manufacturer of the material, as specified in

paragraphs (f)(1) and (2) of this section. For electrodeposition primer operations, the volume fraction of solids must be determined for each material added to the tank or system during each month. If test results obtained according to paragraph (f)(1) of this section do not agree with the information obtained under paragraph (f)(2) of this section, the test results will take precedence unless, after consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

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

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

(g) *Determine the transfer efficiency for each coating.* You must determine the transfer efficiency for each primer-surfacer and topcoat coating, and for all coatings, except for deadener and for adhesive and sealer that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) using ASTM Method D5066–91 (Reapproved 2001), “Standard Test Method for Determination of the Transfer Efficiency Under Production Conditions for Spray Application of Automotive Paints-Weight Basis” (incorporated by reference, see §63.14), or the guidelines presented in “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22). You may conduct transfer efficiency testing on representative coatings and for representative spray booths as described in “Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations,” EPA–450/3–88–018 (Docket ID No. OAR–2002–0093 and Docket ID No. A–2001–22). You may assume 100 percent transfer efficiency for electrodeposition primer coatings, glass bonding primers, and glass bonding adhesives. For final repair coatings, you may assume 40 percent transfer efficiency for air atomized spray and 55 percent transfer efficiency for electrostatic spray and high volume, low pressure spray. For blackout, chip resistant edge primer, interior color, in-line repair, lower body anti-chip coatings, or underbody anti-chip coatings, you may assume 40 percent transfer efficiency for air atomized spray, 55 percent transfer efficiency for electrostatic spray and high volume-low pressure spray, and 80 percent transfer efficiency for airless spray.

(h) *Calculate the total mass of organic HAP emissions before add-on controls.* Calculate the total mass of organic HAP emissions before consideration of add-on controls from all coatings and thinners used during each month in the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) using Equation 1 of this section:

$$H_{BC} = A + B \quad (\text{Eq. 1})$$

Where:

$H_{BC}$  = Total mass of organic HAP emissions before consideration of add-on controls during the month, kg.

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

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

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

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

Where:

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

Vol<sub>c,i</sub> = Total volume of coating, i, used during the month, liters.

D<sub>c,i</sub> = Density of coating, i, kg coating per liter coating.

W<sub>c,i</sub> = Mass fraction of organic HAP in coating, i, kg organic HAP per kg coating.

m = Number of different coatings used during the month.

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

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

Where:

B = Total mass of organic HAP in the thinners used during the month, kg.

Vol<sub>t,j</sub> = Total volume of thinner, j, used during the month, liters.

D<sub>t,j</sub> = Density of thinner, j, kg per liter.

W<sub>t,j</sub> = Mass fraction of organic HAP in thinner, j, kg organic HAP per kg thinner.

n = Number of different thinners used during the month.

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

(j) Calculate the organic HAP emission reduction for each controlled coating operation not using liquid-liquid material balances. For each controlled coating operation using an emission capture system and add-on control device other than a solvent recovery system for which you conduct liquid-liquid material balances, calculate the mass of organic HAP emission reduction for the controlled coating operation, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, during the month using Equation 2 of this section. The calculation of mass of organic HAP emission reduction for the controlled coating operation during the month

applies the emission capture system efficiency and add-on control device efficiency to the mass of organic HAP contained in the coatings and thinners that are used in the coating operation served by the emission capture system and add-on control device during each month. Except as provided in paragraph (p) of this section, for any period of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement of the capture system or control device serving the controlled coating operation occurred, you must assume zero efficiency for the emission capture system and add-on control device. Equation 2 of this section treats the materials used during such a deviation as if they were used on an uncontrolled coating operation for the time period of the deviation.

$$H_{Cn} = (A_C + B_C - A_{unc} - B_{unc}) \left( \frac{CE}{100} \times \frac{DRE}{100} \right) \quad (Eq. 2)$$

Where:

$H_{Cn}$  = Mass of organic HAP emission reduction, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, for the controlled coating operation during the month, kg.

$A_C$  = Total mass of organic HAP in the coatings used in the controlled coating operation during the month, kg, as calculated in Equation 2A of this section.

$B_C$  = Total mass of organic HAP in the thinners used in the controlled coating operation during the month, kg, as calculated in Equation 2B of this section.

$A_{unc}$  = Total mass of organic HAP in the coatings used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg, as calculated in Equation 2C of this section.

$B_{unc}$  = Total mass of organic HAP in the thinners used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg, as calculated in Equation 2D of this section.

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent. Use the test methods and procedures specified in §§63.3164 and 63.3165 to measure and record capture efficiency.

DRE = Organic HAP destruction or removal efficiency of the add-on control device, percent. Use the test methods and procedures in §§63.3164 and 63.3166 to measure and record the organic HAP destruction or removal efficiency.

(1) Calculate the mass of organic HAP in the coatings used in the controlled coating operation, kg, using Equation 2A of this section.

$$A_c = \sum_{i=1}^n (Vol_{c,i}) (D_{c,i}) (W_{c,i}) \quad (Eq. 2A)$$

Where:

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

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

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

$W_{c,i}$  = Mass fraction of organic HAP in coating, i, kg per kg.

m = Number of different coatings used.

(2) Calculate the mass of organic HAP in the thinners used in the controlled coating operation, kg, using Equation 2B of this section.

$$B_c = \sum_{j=1}^n (Vol_{t,j}) (D_{t,j}) (W_{t,j}) \quad (Eq. 2B)$$

Where:

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

$Vol_{t,j}$  = Total volume of thinner, j, used during the month, liters.

$D_{t,j}$  = Density of thinner, j, kg per liter.

$W_{t,j}$  = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

(3) Calculate the mass of organic HAP in the coatings used in the controlled coating operation during deviations specified in §63.3163(c) and (d), using Equation 2C of this section:

$$A_{unc} = \sum_{i=1}^m (VOLD_i) (D_i) (W_i) \quad (Eq. 2C)$$

Where:

$A_{unc}$  = Total mass of organic HAP in the coatings used during all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred for the controlled coating operation during the month, kg.

$VOLD_i$  = 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:

$$B_{unc} = \sum_{j=1}^n (VOLD_j)(D_j)(W_j) \quad (Eq. 2D)$$

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  $\pm 2.0$  percent of the mass of volatile organic matter recovered.

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

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

(4) Determine the density of each coating and thinner used in the coating operation controlled by the solvent recovery system during the month, kg per liter, according to §63.3151(b).

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

(6) Each month, calculate the solvent recovery system's volatile organic matter collection and recovery efficiency, using Equation 3 of this section:

$$R_v = 100 \frac{M_{VR}}{\sum_{i=1}^m Vol_i D_i WV_{c,i} + \sum_{j=1}^n Vol_j D_j WV_{t,j}} \quad (Eq. 3)$$

Where:

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

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

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

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

$WV_{c,i}$  = Mass fraction of volatile organic matter for coating, i, kg volatile organic matter per kg coating.

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

$D_j$  = Density of thinner, j, kg per liter.

$WV_{t,j}$  = Mass fraction of volatile organic matter for thinner, j, kg volatile organic matter per kg thinner.

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

$n$  = Number of different thinners used in the coating operation controlled by the solvent recovery system during the month.

(7) Calculate the mass of organic HAP emission reduction for the coating operation controlled by the solvent recovery system during the month, using Equation 4 of this section:

$$H_{CSR} = (A_{CSR} + B_{CSR}) \left( \frac{R_v}{100} \right) \quad (Eq. 4)$$

Where:

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

$A_{CSR}$  = Total mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 4A of this section.

$B_{CSR}$  = Total mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, calculated using Equation 4B of this section.

$R_v$  = Volatile organic matter collection and recovery efficiency of the solvent recovery system, percent, from Equation 3 of this section.

(i) Calculate the mass of organic HAP in the coatings used in the coating operation controlled by the solvent recovery system, kg, using Equation 4A of this section.

$$A_{CSR} = \sum_{i=1}^m (Vol_{c,i}) (D_{c,i}) (W_{c,i}) \quad (Eq. 4A)$$

Where:

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

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

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

$W_{c,i}$  = Mass fraction of organic HAP in coating, i, kg per kg.

m = Number of different coatings used.

(ii) Calculate the mass of organic HAP in the thinners used in the coating operation controlled by the solvent recovery system, kg, using Equation 4B of this section.

$$B_{CSR} = \sum_{j=1}^n (Vol_{t,j}) (D_{t,j}) (W_{t,j}) \quad (Eq. 4B)$$

Where:

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

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

$D_{t,j}$  = Density of thinner, j, kg per liter.

$W_{t,j}$  = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

(l) Calculate the total volume of coating solids deposited. Determine the total volume of coating solids deposited, liters, in the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems used in coating operations added to the affected source pursuant to §63.3082(c) using Equation 5 of this section:

$$V_{s,dep} = \sum_{i=1}^m (Vol_{a,i}) (V_{r,i}) (TE_{a,i}) \quad (Eq. 5)$$

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.

$$H_{HAP} = H_{BC} - \sum_{i=1}^q (H_{Cn,i}) - \sum_{j=1}^r (H_{CSR,j}) - \sum_{k=1}^q \sum_{m=1}^{S_k} (H_{DEV,k,m}) \quad (Eq. 6)$$

Where:

$H_{HAP}$  = Total mass of organic HAP emissions for the month, kg.

$H_{BC}$  = Total mass of organic HAP emissions before add-on controls from all the coatings and thinners used during the month, kg, determined according to paragraph (h) of this section.

$H_{Cn,i}$  = Total mass of organic HAP emission reduction for controlled coating operation, i, not using a liquid-liquid material balance, excluding all periods of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or control device serving the controlled coating operation occurred, for the controlled coating operation during the month, from Equation 2 of this section.

$H_{CSR,j}$  = Total mass of organic HAP emission reduction for coating operation, j, controlled by a solvent recovery system using a liquid-liquid material balance, during the month, kg, from Equation 4 of this section.

$H_{DEV,k,m}$  = Mass of organic HAP emission reduction, based on the capture system and control device efficiency approved under paragraph (p) of this section for period of deviation, m, for controlled coating operation, k, kg, as determined using Equation 8 of this section.

q = Number of controlled coating operations not using a liquid-liquid material balance.

r = Number of coating operations controlled by a solvent recovery system using a liquid-liquid material balance.

$S_k$  = Number of periods of deviation in the month for which non-zero capture and control device efficiencies have been approved for controlled coating operation, k.

(n) Calculate the organic HAP emission rate for the month. Determine the organic HAP emission rate for the month, kg organic HAP per liter coating solids deposited, using Equation 7 of this section:

$$H_{rate} = (H_{HAP}) / (V_{sdep}) \quad (Eq. 7)$$

Where:

$H_{rate}$  = Organic HAP emission rate for the month compliance period, kg organic HAP per liter coating solids deposited.

$H_{HAP}$  = Mass of organic HAP emissions for the month, kg, determined according to Equation 6 of this section.

$V_{dep}$  = Total volume of coating solids deposited during the month, liters, from Equation 5 of this section.

(o) *Compliance demonstration.* To demonstrate initial compliance, the organic HAP emissions from the combined electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) must be less than or equal to the applicable emission limitation in §63.3090(a) or §63.3091(a). You must keep all records as required by §§63.3130 and 63.3131. As part of the Notification of Compliance Status required by §63.3110, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in §63.3090(a) or §63.3091(a) and you achieved the operating limits required by §63.3093 and the work practice standards required by §63.3094.

(p) You may request approval from the Administrator to use non-zero capture efficiencies and add-on control device efficiencies for any period of time in which a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation occurred.

(1) If you have manually collected parameter data indicating that a capture system or add-on control device was operating normally during a CPMS malfunction, a CPMS out-of-control period, or associated repair, then these data may be used to support and document your request to use the normal capture efficiency or add-on control device efficiency for that period of deviation.

(2) If you have data indicating the actual performance of a capture system or add-on control device ( e.g., capture efficiency measured at a reduced flow rate or add-on control device efficiency measured at a reduced thermal oxidizer temperature) during a deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation, then these data may be used to support and document your request to use these values for that period of deviation.

(3) The organic HAP emission reduction achieved during each period of deviation, including a deviation during a period of startup, shutdown, or malfunction, from an operating limit or from any CPMS requirement for the capture system or add-on control device serving a controlled coating operation for which the Administrator has approved the use of non-zero capture efficiency and add-on control device efficiency values is calculated using Equation 8 of this section.

$$H_{DEV} = (A_{DEV} + B_{DEV}) \left( \frac{CE_{DEV}}{100} \right) \left( \frac{DRE_{DEV}}{100} \right) \quad (Eq. 8)$$

Where:

$H_{DEV}$  = Mass of organic HAP emission reduction achieved during a period of deviation for the controlled coating operation, kg.

$A_{DEV}$  = Total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation, kg, as calculated in Equation 8A of this section.

$B_{DEV}$  = Total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation, kg, as calculated in Equation 8B of this section.

$CE_{DEV}$  = Capture efficiency of the emission capture system vented to the add-on control device, approved for the period of deviation, percent.

$DRE_{DEV}$  = Organic HAP destruction or removal efficiency of the add-on control device approved for the period of deviation, percent.

(4) Calculate the total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation using equation 8A of this section:

$$A_{DEV} = \sum_{i=1}^m (VOL_{CDEV,i}) (D_{c,i}) (W_{c,i}) \quad (Eq. 8A)$$

Where:

$A_{DEV}$  = Total mass of organic HAP in the coatings used in the controlled coating operation during the period of deviation, kg.

$VOL_{CDEV,i}$  = total volume of coating, i, used in the controlled coating operation during the period of deviation, liters.

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

$W_{c,i}$  = Mass fraction of organic HAP in coating, i, kg per kg.

m = Number of different coatings used.

(5) Calculate the total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation using equation 8B of this section:

$$B_{DEV} = \sum_{j=1}^n (VOL_{TDEV,j}) (D_{t,j}) (W_{t,j}) \quad (Eq. 8B)$$

Where:

$B_{DEV}$  = Total mass of organic HAP in the thinners used in the controlled coating operation during the period of deviation, kg.

$VOL_{TDEV,j}$  = Total volume of thinner, j, used in the controlled coating operation during the period of deviation, liters.

$D_{t,j}$  = Density of thinner, j, kg per liter.

$W_{t,j}$  = Mass fraction of organic HAP in thinner, j, kg per kg.

n = Number of different thinners used.

**§ 63.3162 [Reserved]**

**§ 63.3163 How do I demonstrate continuous compliance with the emission limitations?**

(a) To demonstrate continuous compliance with the applicable emission limit in §63.3090(a) or §63.3091(a), the organic HAP emission rate for each compliance period, determined according to the procedures in §63.3161, must be equal to or less than the applicable emission limit in §63.3090(a) or §63.3091(a). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in §63.3160 is a compliance period consisting of that month. You must perform the calculations in §63.3161 on a monthly basis.

(b) If the organic HAP emission rate for any 1 month compliance period exceeded the applicable emission limit in §63.3090(a) or §63.3091(a), this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(6).

(c) You must demonstrate continuous compliance with each operating limit required by §63.3093 that applies to you, as specified in Table 1 to this subpart.

(1) If an operating parameter is out of the allowed range specified in Table 1 to this subpart, this is a deviation from the operating limit that must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(6).

(2) If an operating parameter deviates from the operating limit specified in Table 1 to this subpart, then you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation except as provided in §63.3161(p).

(d) You must meet the requirements for bypass lines in §63.3168(b) for control devices other than solvent recovery systems for which you conduct liquid-liquid material balances. If any bypass line is opened and emissions are diverted to the atmosphere when the coating operation is running, this is a deviation that must be reported as specified in §63.3110(c)(6) and 63.3120(a)(6). For the purposes of completing the compliance calculations specified in §63.3161(k), you must assume that the emission capture system and add-on control device were achieving zero efficiency during the time period of the deviation.

(e) You must demonstrate continuous compliance with the work practice standards in §63.3094. If you did not develop a work practice plan, if you did not implement the plan, or if you did not keep the records required by §63.3130(n), this is a deviation from the work practice standards that must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(6).

(f) If there were no deviations from the emission limitations, submit a statement as part of the semiannual compliance report that you were in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in §63.3090(a) or §63.3091(a), and you achieved the operating limits required by §63.3093 and the work practice standards required by §63.3094 during each compliance period.

(g) [Reserved]

(h) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction of the emission capture system, add-on control device, or coating operation that may affect emission capture or control device efficiency are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The Administrator will determine whether deviations that occur during a period you identify as a startup, shutdown, or malfunction are violations according to the provisions in §63.6(e).

(i) [Reserved]

(j) You must maintain records as specified in §§63.3130 and 63.3131.

[69 FR 22623, April 26, 2004, as amended at 71 FR 20464, Apr. 20, 2006]

**§ 63.3164 What are the general requirements for performance tests?**

(a) You must conduct each performance test required by §63.3160 according to the requirements in §63.7(e)(1) and under the conditions in this section unless you obtain a waiver of the performance test according to the provisions in §63.7(h).

(1) *Representative coating operation operating conditions.* You must conduct the performance test under representative operating conditions for the coating operation. Operations during periods of startup, shutdown, or malfunction, and during periods of nonoperation do not constitute representative conditions. You must record the process information that is necessary to document operating conditions during the test and explain why the conditions represent normal operation.

(2) *Representative emission capture system and add-on control device operating conditions.* You must conduct the performance test when the emission capture system and add-on control device are operating at a representative flow rate, and the add-on control device is operating at a representative inlet concentration. You must record information that is necessary to document emission capture system and add-on control device operating conditions during the test and explain why the conditions represent normal operation.

(b) You must conduct each performance test of an emission capture system according to the requirements in §63.3165. You must conduct each performance test of an add-on control device according to the requirements in §63.3166.

**§ 63.3165 How do I determine the emission capture system efficiency?**

You must use the procedures and test methods in this section to determine capture efficiency as part of the performance test required by §63.3160. For purposes of this subpart, a spray booth air seal is not considered a natural draft opening in a PTE or a temporary total enclosure provided you demonstrate that the direction of air movement across the interface between the spray booth air seal and the spray booth is into the spray booth. For purposes of this subpart, a bake oven air seal is not considered a natural draft opening in a PTE or a temporary total enclosure provided you demonstrate that the direction of air movement across the interface between the bake oven air seal and the bake oven is into the bake oven. You may use lightweight strips of fabric or paper, or smoke tubes to make such demonstrations as part of showing that your capture system is a PTE or conducting a capture efficiency test using a temporary total enclosure. You cannot count air flowing from a spray booth air seal into a spray booth as air flowing through a natural draft opening into a PTE or into a temporary total enclosure unless you elect to treat that spray booth air seal as a natural draft opening. You cannot count air flowing from a bake oven air seal into a bake oven as air flowing through a natural draft opening into a PTE or into a temporary total enclosure unless you elect to treat that bake oven air seal as a natural draft opening.

(a) *Assuming 100 percent capture efficiency.* You may assume the capture system efficiency is 100 percent if both of the conditions in paragraphs (a)(1) and (2) of this section are met:

(1) The capture system meets the criteria in Method 204 of appendix M to 40 CFR part 51 for a PTE and directs all the exhaust gases from the enclosure to an add-on control device.

(2) All coatings and thinners used in the coating operation are applied within the capture system, and coating solvent flash-off and coating curing and drying occurs within the capture system. For example, this criterion is not met if parts enter the open shop environment when being moved between a spray booth and a curing oven.

(b) *Measuring capture efficiency.* If the capture system does not meet both of the criteria in paragraphs (a)(1) and (2) of this section, then you must use one of the five procedures described in paragraphs (c) through (g) of this section to measure capture efficiency. The capture efficiency measurements use TVH capture

efficiency as a surrogate for organic HAP capture efficiency. For the protocols in paragraphs (c) and (d) of this section, the capture efficiency measurement must consist of three test runs. Each test run must be at least 3 hours duration or the length of a production run, whichever is longer, up to 8 hours. For the purposes of this test, a production run means the time required for a single part to go from the beginning to the end of production, which includes surface preparation activities and drying or curing time.

(c) *Liquid-to-uncaptured-gas protocol using a temporary total enclosure or building enclosure.* The liquid-to-uncaptured-gas protocol compares the mass of liquid TVH in materials used in the coating operation to the mass of TVH emissions not captured by the emission capture system. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (c)(1) through (6) of this section to measure emission capture system efficiency using the liquid-to-uncaptured-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings and thinners are applied, and all areas where emissions from these applied coatings and thinners subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions for routing to an add-on control device, such as the entrance and exit areas of an oven or spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204A or F of appendix M to 40 CFR part 51 to determine the mass fraction of TVH liquid input from each coating and thinner used in the coating operation during each capture efficiency test run. To make the determination, substitute TVH for each occurrence of the term volatile organic compounds (VOC) in the methods.

(3) Use Equation 1 of this section to calculate the total mass of TVH liquid input from all the coatings and thinners used in the coating operation during each capture efficiency test run.

$$TVH_{used} = \sum_{i=1}^n (TVH_i)(Vol_i)(D_i) \quad (Eq. 1)$$

Where:

TVH<sub>i</sub>= Mass fraction of TVH in coating or thinner, i, used in the coating operation during the capture efficiency test run, kg TVH per kg material.

Vol<sub>i</sub>= Total volume of coating or thinner, i, used in the coating operation during the capture efficiency test run, liters.

D<sub>i</sub>= Density of coating or thinner, i, kg material per liter material.

n = Number of different coatings and thinners used in the coating operation during the capture efficiency test run.

(4) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) Use Method 204D if the enclosure is a temporary total enclosure.

(ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for

which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.

(5) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 2 of this section:

$$CE = \frac{(TVH_{used} - TVH_{uncaptured})}{TVH_{used}} \times 100 \quad (Eq. 2)$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH<sub>used</sub> = Total mass of TVH liquid input used in the coating operation during the capture efficiency test run, kg.

TVH<sub>uncaptured</sub> = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

(6) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(d) *Gas-to-gas protocol using a temporary total enclosure or a building enclosure.* The gas-to-gas protocol compares the mass of TVH emissions captured by the emission capture system to the mass of TVH emissions not captured. Use a temporary total enclosure or a building enclosure and the procedures in paragraphs (d)(1) through (5) of this section to measure emission capture system efficiency using the gas-to-gas protocol.

(1) Either use a building enclosure or construct an enclosure around the coating operation where coatings and thinners are applied, and all areas where emissions from these applied coatings and thinners subsequently occur, such as flash-off, curing, and drying areas. The areas of the coating operation where capture devices collect emissions generated by the coating operation for routing to an add-on control device, such as the entrance and exit areas of an oven or a spray booth, must also be inside the enclosure. The enclosure must meet the applicable definition of a temporary total enclosure or building enclosure in Method 204 of appendix M to 40 CFR part 51.

(2) Use Method 204B or C of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions captured by the emission capture system during each capture efficiency test run as measured at the inlet to the add-on control device. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

(i) The sampling points for the Method 204B or C measurement must be upstream from the add-on control device and must represent total emissions routed from the capture system and entering the add-on control device.

(ii) If multiple emission streams from the capture system enter the add-on control device without a single common duct, then the emissions entering the add-on control device must be simultaneously or sequentially measured in each duct, and the total emissions entering the add-on control device must be determined.

(3) Use Method 204D or E of appendix M to 40 CFR part 51 to measure the total mass, kg, of TVH emissions that are not captured by the emission capture system; they are measured as they exit the temporary total enclosure or building enclosure during each capture efficiency test run. To make the measurement, substitute TVH for each occurrence of the term VOC in the methods.

- (i) Use Method 204D if the enclosure is a temporary total enclosure.
  - (ii) Use Method 204E if the enclosure is a building enclosure. During the capture efficiency measurement, all organic compound emitting operations inside the building enclosure, other than the coating operation for which capture efficiency is being determined, must be shut down, but all fans and blowers must be operating normally.
- (4) For each capture efficiency test run, determine the percent capture efficiency of the emission capture system using Equation 3 of this section:

$$CE = \frac{TVH_{\text{captured}}}{(TVH_{\text{captured}} + TVH_{\text{uncaptured}})} \times 100 \quad (\text{Eq. 3})$$

Where:

CE = Capture efficiency of the emission capture system vented to the add-on control device, percent.

TVH<sub>captured</sub> = Total mass of TVH captured by the emission capture system as measured at the inlet to the add-on control device during the emission capture efficiency test run, kg.

TVH<sub>uncaptured</sub> = Total mass of TVH that is not captured by the emission capture system and that exits from the temporary total enclosure or building enclosure during the capture efficiency test run, kg.

- (5) Determine the capture efficiency of the emission capture system as the average of the capture efficiencies measured in the three test runs.

(e) *Panel testing to determine the capture efficiency of flash-off or bake oven emissions.* You may conduct panel testing to determine the capture efficiency of flash-off or bake oven emissions using ASTM Method D5087-02, "Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)" (incorporated by reference, see §63.14), ASTM Method D6266-00a, "Test Method for Determining the Amount of Volatile Organic Compound (VOC) Released from Waterborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)" (incorporated by reference, see §63.14), or the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). You may conduct panel testing on representative coatings as described in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). The results of these panel testing procedures are in units of mass of VOC per volume of coating solids deposited and must be converted to a percent value for use in this subpart. If you panel test representative coatings, then you may convert the panel test result for each representative coating either to a unique percent capture efficiency for each coating grouped with that representative coating by using coating specific values for the volume of coating solids deposited per volume of coating used, mass of VOC per volume of coating, volume fraction solids, transfer efficiency, density and mass fraction VOC in Equations 4 through 6 of this section; or to a composite percent capture efficiency for the group of coatings by using composite values for the group of coatings for the volume of coating solids deposited per volume of coating used and for the mass of VOC per volume of coating, and average values for the group of coatings for volume fraction solids, transfer efficiency, density and mass fraction VOC in Equations 4 through 6 of this section. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency for that coating by using coating specific values for the volume of coating solids deposited per volume of coating used, mass of VOC per volume of coating, volume fraction solids, transfer efficiency, density, and mass fraction VOC in Equations 4 through 6 of this section. Panel test results expressed in units of mass of VOC per volume of coating solids deposited must be converted to percent

capture efficiency using Equation 4 of this section. (An alternative for using panel test results expressed in units of mass of VOC per mass of coating solids deposited is presented in paragraph (e)(3) of this section.)

$$CE_i = (P_{v,i}) (V_{sdep,i}) (100) / (VOC_i) \quad (Eq. 4)$$

Where:

CE<sub>i</sub>= 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<sub>v,i</sub>= 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<sub>sdep,i</sub>= 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<sub>i</sub>= Mass of VOC per volume of coating for coating, i, or composite mass of VOC per volume of coating for the group of coatings including coating, i, kg per liter, from Equation 6 of this section.

(1) Calculate the volume of coating solids deposited per volume of coating used for coating, i, or the composite volume of coating solids deposited per volume of coating used for the group of coatings including coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted using Equation 5 of this section:

$$V_{sdep,i} = (V_{s,i}) (TE_{c,i}) \quad (Eq. 5)$$

Where:

V<sub>sdep,i</sub>= 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<sub>s,i</sub>= 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<sub>c,i</sub>= 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:

$$VOC_i = (D_{a,i}) (W_{voc,a,i}) \quad (Eq. 6)$$

Where:

$VOC_i$  = Mass of VOC per volume of coating for coating, i, or composite mass of VOC per volume of coating for the group of coatings including coating, i, used during the month in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg VOC per liter coating.

$D_{c,i}$  = Density of coating, i, or average density of the group of coatings, including coating, i, kg coating per liter coating, density determined according to §63.3151(b).

$W_{voc,i}$  = 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:

$$CE_i = (P_{m,i}) (W_{sdep,i}) (100) / (W_{voc,i}) \quad (Eq. 7)$$

Where:

$CE_i$  = Capture efficiency for coating, i, or for the group of coatings including coating, i, for the flash-off area or bake oven for which the panel test is conducted, percent.

$P_{m,i}$  = Panel test result for coating, i, or for the coating representing coating, i, in the panel test, kg of VOC per kg of coating solids deposited.

$W_{sdep,i}$  = Mass of coating solids deposited per mass of coating used for coating, i, or composite mass of coating solids deposited per mass of coating used for the group of coatings, including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg of solids deposited per kg of coating used, from Equation 8 of this section.

$W_{voc,i}$  = 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:

$$W_{sdep,i} = (W_{s,i})(TE_{c,i}) \quad (\text{Eq. 8})$$

Where:

$W_{sdep,i}$ = Mass of coating solids deposited per mass of coating used for coating, i, or composite mass of coating solids deposited per mass of coating used for the group of coatings including coating, i, in the spray booth(s) preceding the flash-off area or bake oven for which the panel test is conducted, kg coating solids deposited per kg coating used.

$W_{s,i}$ = Mass fraction of coating solids for coating, i, or average mass fraction of coating solids for the group of coatings including coating, i, kg coating solids per kg coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).

$TE_{c,i}$ = Transfer efficiency of coating, i, or average transfer efficiency for the group of coatings including coating, i, in the spray booth(s) for the flash-off area or bake oven for which the panel test is conducted determined according to §63.3161(g), expressed as a decimal, for example 60 percent must be expressed as 0.60. (Transfer efficiency also may be determined by testing representative coatings. The same coating groupings may be appropriate used for both transfer efficiency testing and panel testing. In this case, all of the coatings in a panel test grouping would have the same transfer efficiency.)

(f) *Alternative capture efficiency procedure.* As an alternative to the procedures specified in paragraphs (c) through (e) and (g) of this section, you may determine capture efficiency using any other capture efficiency protocol and test methods that satisfy the criteria of either the DQO or LCL approach as described in appendix A to subpart KK of this part.

(g) *Panel testing to determine the capture efficiency of spray booth emissions from solvent-borne coatings.* You may conduct panel testing to determine the capture efficiency of spray booth emissions from solvent-borne coatings using the procedure in appendix A to this subpart.

[69 FR 22623, Apr. 26, 2004, as amended at 72 FR 20234, Apr. 24, 2007]

### **§ 63.3166 How do I determine the add-on control device emission destruction or removal efficiency?**

You must use the procedures and test methods in this section to determine the add-on control device emission destruction or removal efficiency as part of the performance test required by §63.3160. You must conduct three test runs as specified in §63.7(e)(3), and each test run must last at least 1 hour.

(a) For all types of add-on control devices, use the test methods specified in paragraphs (a)(1) through (5) of this section.

(1) Use Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select sampling sites and velocity traverse points.

(2) Use Method 2, 2A, 2C, 2D, 2F, or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 3, 3A, or 3B of appendix A to 40 CFR part 60, as appropriate, for gas analysis to determine dry molecular weight. The ANSI/ASME PTC 19.10–1981, “Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]” (incorporated by reference, see §63.14), may be used as an alternative to Method 3B.

(4) Use Method 4 of appendix A to 40 CFR part 60 to determine stack gas moisture.

(5) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run.

(b) Measure total gaseous organic mass emissions as carbon at the inlet and outlet of the add-on control device simultaneously, using either Method 25 or 25A of appendix A to 40 CFR part 60, as specified in paragraphs (b)(1) through (3) of this section. You must use the same method for both the inlet and outlet measurements.

(1) Use Method 25 if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be more than 50 parts per million by volume (ppmv) at the control device outlet.

(2) Use Method 25A if the add-on control device is an oxidizer and you expect the total gaseous organic concentration as carbon to be 50 ppmv or less at the control device outlet.

(3) Use Method 25A if the add-control device is not an oxidizer.

(c) If two or more add-on control devices are used for the same emission stream, then you must measure emissions at the outlet of each device. For example, if one add-on control device is a concentrator with an outlet for the high-volume, dilute stream that has been treated by the concentrator, and a second add-on control device is an oxidizer with an outlet for the low-volume, concentrated stream that is treated with the oxidizer, you must measure emissions at the outlet of the oxidizer and the high volume dilute stream outlet of the concentrator.

(d) For each test run, determine the total gaseous organic emissions mass flow rates for the inlet and the outlet of the add-on control device, using Equation 1 of this section. If there is more than one inlet or outlet to the add-on control device, you must calculate the total gaseous organic mass flow rate using Equation 1 of this section for each inlet and each outlet and then total all of the inlet emissions and total all of the outlet emissions.

$$M_f = Q_{sd} C_c (12)(0.0416)(10^{-6}) \quad (\text{Eq. 1})$$

Where:

$M_f$  = Total gaseous organic emissions mass flow rate, kg per hour (kg/h).

$C_c$  = Concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, ppmv, dry basis.

$Q_{sd}$  = Volumetric flow rate of gases entering or exiting the add-on control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters per hour (dscm/h).

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter ( $\text{mol}/\text{m}^3$ ) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

(e) For each test run, determine the add-on control device organic emissions destruction or removal efficiency using Equation 2 of this section:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} (100) \quad (\text{Eq. 2})$$

Where:

DRE = Organic emissions destruction or removal efficiency of the add-on control device, percent.

$M_{fi}$  = Total gaseous organic emissions mass flow rate at the inlet(s) to the add-on control device, using Equation 1 of this section, kg/h.

$M_{fo}$  = Total gaseous organic emissions mass flow rate at the outlet(s) of the add-on control device, using Equation 1 of this section, kg/h.

(f) Determine the emission destruction or removal efficiency of the add-on control device as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.

**§ 63.3167 How do I establish the add-on control device operating limits during the performance test?**

During the performance test required by §63.3160 and described in §§63.3164 and 63.3166, you must establish the operating limits required by §63.3093 according to this section, unless you have received approval for alternative monitoring and operating limits under §63.8(f) as specified in §63.3093.

(a) *Thermal oxidizers*. If your add-on control device is a thermal oxidizer, establish the operating limit according to paragraphs (a)(1) through (3) of this section.

(1) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.

(2) Use all valid data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum 3-hour average operating limit for your thermal oxidizer.

(3) As an alternative, if the latest operating permit issued before April 26, 2007, for the thermal oxidizer at your facility contains recordkeeping and reporting requirements for the combustion temperature that are consistent with the requirements for thermal oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for the combustion temperature for each such thermal oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average combustion temperature during the performance test of that thermal oxidizer. If you do not have an operating permit for the thermal oxidizer at your facility and the latest construction permit issued before April 26, 2007, for the thermal oxidizer at your facility contains recordkeeping and reporting requirements for the combustion temperature that are consistent with the requirements for thermal oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for the combustion temperature for each such thermal oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average combustion temperature during the performance test of that thermal oxidizer. If you use 28 degrees Celsius (50 degrees Fahrenheit) below the combustion temperature maintained during the performance test as the minimum operating limit for a thermal oxidizer, then you must keep the combustion temperature set point on that thermal oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that thermal oxidizer and the average combustion temperature maintained during the performance test for that thermal oxidizer.

(b) *Catalytic oxidizers*. If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) through (3) or paragraphs (b)(4) through (6) of this section.

(1) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.

(2) Use all valid data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. The minimum 3-hour average operating limits for your catalytic oxidizer are the average temperature just before the catalyst bed maintained during the performance test of that catalytic oxidizer and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test of that catalytic oxidizer, except during periods of low production, the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. A low production period is when production is less than 80 percent of production rate during the performance test of that catalytic oxidizer.

(3) As an alternative, if the latest operating permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limits for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test for that catalytic oxidizer, except during periods of low production the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. If you do not have an operating permit for the catalytic oxidizer at your facility and the latest construction permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limits for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer and 80 percent of the average temperature difference across the catalyst bed maintained during the performance test for that catalytic oxidizer, except during periods of low production the latter minimum operating limit is to maintain a positive temperature gradient across the catalyst bed. A low production period is when production is less than 80 percent of production rate during the performance test. If you use 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test as the minimum operating limits for a catalytic oxidizer, then you must keep the set point for the temperature just before the catalyst bed on that catalytic oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that catalytic oxidizer and the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer.

(4) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(6) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use all valid data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

(5) If the latest operating permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer. If you do not have an operating permit for the catalytic oxidizer at your facility and the latest construction permit issued before April 26, 2007, for the catalytic oxidizer at your facility contains recordkeeping and reporting requirements for the temperature before the catalyst bed that are consistent with the requirements for catalytic oxidizers in 40 CFR 60.395(c), then you may set the minimum operating limit for each such catalytic oxidizer at your affected source at 28 degrees Celsius (50 degrees Fahrenheit)

below the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer. If you use 28 degrees Celsius (50 degrees Fahrenheit) below the average temperature just before the catalyst bed maintained during the performance test as the minimum operating limit for a catalytic oxidizer, then you must keep the set point for the temperature just before the catalyst bed on that catalytic oxidizer no lower than 14 degrees Celsius (25 degrees Fahrenheit) below the lower of that set point during the performance test for that catalytic oxidizer and the average temperature just before the catalyst bed maintained during the performance test for that catalytic oxidizer.

(6) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(4) or (b)(5) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(6)(i) through (iii) of this section.

(i) Annual sampling and analysis of the catalyst activity ( *i.e.* , conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures. If problems are found during the catalyst activity test, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations.

(ii) Monthly external inspection of the catalytic oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.

(iii) Annual internal inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found during the annual internal inspection of the catalyst, you must replace the catalyst bed or take other corrective action consistent with the manufacturer's recommendations. If the catalyst bed is replaced and is not of like or better kind and quality as the old catalyst, then you must conduct a new performance test to determine destruction efficiency according to §63.3166. If a catalyst bed is replaced and the replacement catalyst is of like or better kind and quality as the old catalyst, then a new performance test to determine destruction efficiency is not required and you may continue to use the previously established operating limits for that catalytic oxidizer.

(c) *Regenerative carbon adsorbers.* If your add-on control device is a regenerative carbon adsorber, establish the operating limits according to paragraphs (c)(1) and (2) of this section.

(1) You must monitor and record the total regeneration desorbing gas ( *e.g.*, steam or nitrogen) mass flow for each regeneration cycle and the carbon bed temperature after each carbon bed regeneration and cooling cycle for the regeneration cycle either immediately preceding or immediately following the performance test.

(2) The operating limits for your carbon adsorber are the minimum total desorbing gas mass flow recorded during the regeneration cycle and the maximum carbon bed temperature recorded after the cooling cycle.

(d) *Condensers.* If your add-on control device is a condenser, establish the operating limits according to paragraphs (d)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the condenser outlet (product side) gas temperature at least once every 15 minutes during each of the three test runs.

(2) Use all valid data collected during the performance test to calculate and record the average condenser outlet (product side) gas temperature maintained during the performance test. This average condenser outlet gas temperature is the maximum 3-hour average operating limit for your condenser.

(e) *Concentrators.* If your add-on control device includes a concentrator, you must establish operating limits for the concentrator according to paragraphs (e)(1) and (2) of this section.

(1) During the performance test, you must monitor and record the desorption gas inlet temperature at least once every 15 minutes during each of the three runs of the performance test.

(2) Use all valid data collected during the performance test to calculate and record the average desorption gas inlet temperature. The minimum operating limit for the concentrator is 8 degrees Celsius (15 degrees Fahrenheit) below the average desorption gas inlet temperature maintained during the performance test for that concentrator. You must keep the set point for the desorption gas inlet temperature no lower than 6 degrees Celsius (10 degrees Fahrenheit) below the lower of that set point during the performance test for that concentrator and the average desorption gas inlet temperature maintained during the performance test for that concentrator.

(f) *Emission capture systems.* For each capture device that is not part of a PTE that meets the criteria of §63.3165(a) and that is not capturing emissions from a downdraft spray booth or from a flash-off area or bake oven associated with a downdraft spray booth, establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(1) and (2) of this section. The operating limit for a PTE is specified in Table 1 to this subpart.

(1) During the capture efficiency determination required by §63.3160 and described in §§63.3164 and 63.3165, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate capture device in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the capture device and the add-on control device inlet.

(2) Calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each capture device, using all valid data. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific capture device.

[69 FR 22623, Apr. 26, 2004, as amended at 72 FR 20235, Apr. 24, 2007]

**§ 63.3168 What are the requirements for continuous parameter monitoring system installation, operation, and maintenance?**

(a) *General.* You must install, operate, and maintain each CPMS specified in paragraphs (c), (e), (f), and (g) of this section according to paragraphs (a)(1) through (6) of this section. You must install, operate, and maintain each CPMS specified in paragraphs (b) and (d) of this section according to paragraphs (a)(3) through (5) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally-spaced successive cycles of CPMS operation in 1 hour.

(2) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(3) You must record the results of each inspection, calibration, and validation check of the CPMS.

(4) You must maintain the CPMS at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the CPMS and collect emission capture system and add-on control device parameter data at all times that a controlled coating operation is operating, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the CPMS to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system is out of control and data are not available for required calculations is a deviation from the monitoring requirements.

(b) *Capture system bypass line.* You must meet the requirements of paragraphs (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (iv) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure monitoring.* Ensure that any bypass line valve is in the closed (nondiverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the coating operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the coating operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the coating operation.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in §63.3120.

(c) *Thermal oxidizers and catalytic oxidizers.* If you are using a thermal oxidizer or catalytic oxidizer as an add-on control device (including those used to treat desorbed concentrate streams from concentrators or carbon adsorbers), you must comply with the requirements in paragraphs (c)(1) through (3) of this section:

(1) For a thermal oxidizer, install a gas temperature monitor in the firebox of the thermal oxidizer or in the duct immediately downstream of the firebox before any substantial heat exchange occurs.

(2) For a catalytic oxidizer, install a gas temperature monitor upstream of the catalyst bed. If you establish the operating parameters for a catalytic oxidizer under §63.3167(b)(1) through (3), you must also install a gas temperature monitor downstream of the catalyst bed. The temperature monitors must be in the gas stream immediately before and after the catalyst bed to measure the temperature difference across the bed. If you establish the operating parameters for a catalytic oxidizer under §63.3167(b)(4) through (6), you need not install a gas temperature monitor downstream of the catalyst bed.

(3) For all thermal oxidizers and catalytic oxidizers, you must meet the requirements in paragraphs (a)(1) through (6) and (c)(3)(i) through (vii) of this section for each gas temperature monitoring device.

- (i) Locate the temperature sensor in a position that provides a representative temperature.
  - (ii) Use a temperature sensor with a measurement sensitivity of 4 degrees Fahrenheit or 0.75 percent of the temperature value, whichever is larger.
  - (iii) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.
  - (iv) If a gas temperature chart recorder is used, it must have a measurement sensitivity in the minor division of at least 20 degrees Fahrenheit.
  - (v) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, you must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 30 degrees Fahrenheit of the process temperature sensor reading.
  - (vi) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.
  - (vii) At least monthly, inspect components for integrity and electrical connections for continuity, oxidation, and galvanic corrosion.
- (d) *Regenerative carbon adsorbers.* If you are using a regenerative carbon adsorber as an add-on control device, you must monitor the total regeneration desorbing gas ( e.g., steam or nitrogen) mass flow for each regeneration cycle, the carbon bed temperature after each regeneration and cooling cycle, and comply with paragraphs (a)(3) through (5) and (d)(1) and (2) of this section.
- (1) The regeneration desorbing gas mass flow monitor must be an integrating device having a measurement sensitivity of plus or minus 10 percent, capable of recording the total regeneration desorbing gas mass flow for each regeneration cycle.
  - (2) The carbon bed temperature monitor must have a measurement sensitivity of 1 percent of the temperature (as expressed in degrees Fahrenheit) recorded or 1 degree Fahrenheit, whichever is greater, and must be capable of recording the temperature within 15 minutes of completing any carbon bed cooling cycle.
- (e) *Condensers.* If you are using a condenser, you must monitor the condenser outlet (product side) gas temperature and comply with paragraphs (a)(1) through (6) and (e)(1) and (2) of this section.
- (1) The gas temperature monitor must have a measurement sensitivity of 1 percent of the temperature (expressed in degrees Fahrenheit) recorded or 1 degree Fahrenheit, whichever is greater.
  - (2) The temperature monitor must provide a gas temperature record at least once every 15 minutes.
- (f) *Concentrators.* If you are using a concentrator, such as a zeolite wheel or rotary carbon bed concentrator, you must install a temperature monitor in the desorption gas stream. The temperature monitor must meet the requirements in paragraphs (a)(1) through (6) and (c)(3) of this section.
- (g) *Emission capture systems.* The capture system monitoring system must comply with the applicable requirements in paragraphs (g)(1) and (2) of this section.
- (1) For each flow measurement device, you must meet the requirements in paragraphs (a)(1) through (6) and (g)(1)(i) through (iv) of this section.

(i) Locate a flow sensor in a position that provides a representative flow measurement in the duct from each capture device in the emission capture system to the add-on control device.

(ii) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

(2) For each pressure drop measurement device, you must comply with the requirements in paragraphs (a)(1) through (6) and (g)(2)(i) through (vi) of this section.

(i) Locate the pressure tap(s) in a position that provides a representative measurement of the pressure drop across each opening you are monitoring.

(ii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) Check pressure tap pluggage daily.

(iv) Using an inclined manometer with a measurement sensitivity of 0.0002 inch water, check gauge calibration quarterly and transducer calibration monthly.

(v) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(vi) At least monthly, inspect components for integrity, electrical connections for continuity, and mechanical connections for leakage.

**§ 63.3169 What are the requirements for a capture system or add-on control device which is not taken into account when demonstrating compliance with the applicable emission limitations?**

You may have capture systems or add-on control devices which you choose not to take into account when demonstrating compliance with the applicable emission limitations. For any such capture system or add-on control device, you are not required to comply with the requirements of §§63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, reporting, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, or removal efficiency. If, at a later date, you decide to take any such capture system or add-on control device into account when demonstrating compliance with the emission limitations, then at that time you must comply with the requirements of §§63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, and removal efficiency, as applicable, for that capture system or add-on control device.

[72 FR 20235, Apr. 24, 2007]

## **Compliance Requirements for the Combined Primer-Surfacer, Topcoat, Final Repair, Glass Bonding Primer, and Glass Bonding Adhesive Emission Limitations and the Separate Electrodeposition Primer Emission Limitations**

### **§ 63.3170 By what date must I conduct performance tests and other initial compliance demonstrations?**

(a) *New and reconstructed affected sources.* For a new or reconstructed affected source, you must meet the requirements of paragraphs (a)(1) through (4) of §63.3160.

(b) *Existing affected sources.* For an existing affected source, you must meet the requirements of paragraphs (b)(1) through (3) of §63.3160.

### **§ 63.3171 How do I demonstrate initial compliance?**

(a) You must meet all of the requirements of this section to demonstrate initial compliance. To demonstrate initial compliance, the organic HAP emissions from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) must meet the applicable emission limitation in §63.3090(b) or §63.3091(b); and the organic HAP emissions from the electrodeposition primer operation must meet the applicable emissions limitations in §63.3092(a) or (b).

(b) *Compliance with operating limits.* Except as provided in §63.3160(a)(4), you must establish and demonstrate continuous compliance during the initial compliance period with the operating limits required by §63.3093, using the procedures specified in §§63.3167 and 63.3168.

(c) *Compliance with work practice requirements.* You must develop, implement, and document your implementation of the work practice plans required by §63.3094(b) and (c) during the initial compliance period, as specified in §63.3130.

(d) *Compliance with emission limits.* You must follow the procedures in §63.3161(e) through (n), excluding materials used in electrodeposition primer operations, to demonstrate compliance with the applicable emission limit in §63.3090(b) or §63.3091(b). You must follow the procedures in paragraph (e) of this section to demonstrate compliance with the emission limit in §63.3092(a), or paragraphs (f) through (g) of this section to demonstrate compliance with the emission limitations in §63.3092(b).

(e) *Determine the mass fraction of each organic HAP in each material used in the electrodeposition primer operation.* You must determine the mass fraction of each organic HAP for each material used in the electrodeposition primer operation during the compliance period by using one of the options in paragraphs (e)(1) through (3) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of each organic HAP.

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

(3) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (e)(1) and (2) of this section, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4), and at 1.0 percent by mass or more for other compounds. If there is a disagreement between such information and results of a test conducted according to paragraph (e)(1) or (2) of this section, then the test method results will take precedence unless after

consultation, the facility demonstrates to the satisfaction of the enforcement authority that the facility's data are correct.

(f) *Capture of electrodeposition bake oven emissions.* You must show that the electrodeposition bake oven meets the criteria in sections 5.3 through 5.5 of Method 204 of appendix M to 40 CFR part 51 and directs all of the exhaust gases from the bake oven to an add-on control device. For purposes of this showing, an electrodeposition bake oven air seal is not considered a natural draft opening provided you demonstrate that the direction of air movement across the interface between the bake oven air seal and the bake oven is into the bake oven. You may use lightweight strips of fabric or paper, or smoke tubes to make such demonstrations. You cannot count air flowing from an electrodeposition bake oven air seal into an electrodeposition bake oven as air flowing through a natural draft opening unless you elect to treat that electrodeposition bake oven air seal as a natural draft opening.

(g) *Control of electrodeposition bake oven emissions.* Determine the efficiency of each control device on each electrodeposition bake oven using the procedures in §§63.3164 and 63.3166.

(h) *Compliance demonstration.* To demonstrate initial compliance, the organic HAP emissions from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) must meet the applicable emission limitation in §63.3090(b) or §63.3091(b); the organic HAP emissions from the electrodeposition primer operation must meet the applicable emissions limitations in §63.3092(a) or (b). You must keep all records as required by §§63.3130 and 63.3131. As part of the Notification of Compliance Status required by §63.3110, you must submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate from the combined primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations plus all coatings and thinners, except for deadener materials and for adhesive and sealer materials that are not components of glass bonding systems, used in coating operations added to the affected source pursuant to §63.3082(c) was less than or equal to the applicable emission limit in §63.3090(b) or §63.3091(b), and the organic HAP emissions from the electrodeposition primer operation met the applicable emissions limitations in §63.3092(a) or (b), and you achieved the operating limits required by §63.3093 and the work practice standards required by §63.3094.

[69 FR 22623, Apr. 26, 2004, as amended at 72 FR 20235, Apr. 24, 2007]

#### **§ 63.3172 [Reserved]**

#### **§ 63.3173 How do I demonstrate continuous compliance with the emission limitations?**

(a) To demonstrate continuous compliance with the applicable emission limit in §63.3090(b) or §63.3091(b), the organic HAP emission rate for each compliance period determined according to the procedures in §63.3171 must be equal to or less than the applicable emission limit in §63.3090(b) or §63.3091(b). A compliance period consists of 1 month. Each month after the end of the initial compliance period described in §63.3170 is a compliance period consisting of that month. You must perform the calculations in §63.3171 on a monthly basis.

(b) If the organic HAP emission rate for any 1 month compliance period exceeded the applicable emission limit in §63.3090(b) or §63.3091(b), this is a deviation from the emission limitation for that compliance period and must be reported as specified in §§63.3110(c)(6) and 63.3120(a)(6).

(c) You must meet the requirements of §63.3163(c) through (j).

**§ 63.3174 What are the requirements for a capture system or add-on control device which is not taken into account when demonstrating compliance with the applicable emission limitations?**

You may have capture systems or add-on control devices which you choose not to take into account when demonstrating compliance with the applicable emission limitations. For any such capture system or add-on control device, you are not required to comply with the requirements of §§63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, reporting, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, or removal efficiency. If, at a later date, you decide to take any such capture system or add-on control device into account when demonstrating compliance with the emission limitations, then at that time you must comply with the requirements of §§63.3093, 63.3100, 63.3110, 63.3120, 63.3130, 63.3131, and 63.3160 through 63.3168 with regard to notification, reporting, recordkeeping, performance tests, monitoring, operating parameters, capture efficiency, add-on control device efficiency, destruction efficiency, and removal efficiency, as applicable, for that capture system or add-on control device.

[72 FR 20236, Apr. 24, 2007]

**Other Requirements and Information**

**§ 63.3175 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by us, EPA, or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section:

(1) Approval of alternatives to the work practice standards in §63.3094 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

**§ 63.3176 What definitions apply to this subpart?**

Terms used in this subpart are defined in the CAA, in the General Provisions of this part, and in this section as follows:

*Add-on control device* means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

*Add-on control device efficiency* means the ratio of the emissions collected or destroyed by an add-on air pollution control device to the total emissions that are introduced into the control device, expressed as a percentage.

*Adhesive* means any chemical substance that is applied for the purpose of bonding two surfaces together.

*Adhesive and sealer material* means adhesives, sealers and thinners added to adhesives or sealers.

*Anti-chip coating* means a specialty type of coating designed to reduce stone chipping damage. Anti-chip coating may be applied to broad areas of the vehicle or to selected vehicle surfaces that are most vulnerable to impingement by stones and other road debris. Anti-chip coating is typically applied after the *electrodeposition primer* and before the *topcoat*. Anti-chip coating is a type of *primer-surfacer*.

*Automobile* means a motor vehicle designed to carry up to eight passengers, excluding vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property. See also *Light-duty truck*.

*Automobile and light-duty truck assembly plant* means a facility which assembles automobiles or light-duty trucks, including coating facilities and processes.

*Bake oven air seal* means an entry or entry vestibule to or an exit or exit vestibule from a bake oven which isolates the bake oven from the area immediately preceding (for an entry or entry vestibule) or immediately following (for an exit or exit vestibule) the bake oven. No significant VOC generating activity takes place in a bake oven air seal. Fresh air is supplied into a bake oven air seal and is then directed in part into the bake oven and in part into the area immediately preceding or immediately following the bake oven. All types of bake ovens, including ovens associated with spray booths and electrodeposition primer bake ovens, may have bake oven air seals.

*Basecoat/clearcoat* means a topcoat system applied to exterior and selected interior vehicle surfaces primarily to provide an aesthetically pleasing appearance and acceptable durability performance. It consists of a layer of pigmented basecoat color coating, followed directly by a layer of a clear or semitransparent coating. It may include multiple layers of color coats or tinted clear materials.

*Blackout coating* means a type of specialty coating applied on selected vehicle surfaces (including areas of the engine compartment visible through the grill, and window and pillar trim) to provide a cosmetic appearance. Typically black or dark gray color. Blackout coating may be included in either the primer-surfacer or topcoat operations.

*Body part* means exterior parts such as hoods, fenders, doors, roof, quarter panels, decklids, tail gates, and cargo beds. Body parts were traditionally made of sheet metal, but now are also made of plastic. Bumpers, fascia, and cladding are not body parts.

*Capture device* means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

*Capture efficiency or capture system efficiency* means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

*Capture system* means one or more capture devices intended to collect emissions generated by a coating operation in the use of coatings, both at the point of application and at subsequent points where emissions from the coatings occur, such as flash-off, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a coating operation are considered a single capture system.

*Catalytic oxidizer* means a device for oxidizing pollutants or waste materials via flame and heat incorporating a catalyst to aid the combustion at lower operating temperature.

*Chip resistant edge primer* means an *anti-chip coating* applied to the leading edge of parts such as the hood or roof.

*Cleaning material* means a solvent used to remove contaminants and other materials such as dirt, grease, oil, and dried ( e.g., depainting) or wet coating from a substrate before or after coating application; or from equipment associated with a coating operation, such as spray booths, spray guns, tanks, and hangers. Thus, it includes any cleaning material used on substrates or equipment or both.

*Coating* means a material applied to a substrate for decorative, protective, or functional purposes. Such materials include, but are not limited to, paints, sealants, caulks, inks, adhesives, primers, deadeners, and maskants. Decorative, protective, or functional materials that consist only of protective oils for metal, acids, bases, or any combination of these substances are not considered coatings for the purposes of this subpart.

*Coating operation* means equipment used to apply coating to a substrate (coating application) and to dry or cure the coating after application. A single coating operation always includes at least the point at which a coating is applied and all subsequent points in the affected source where organic HAP emissions from that coating occur. There may be multiple coating operations in an affected source. Coating application with hand-held nonrefillable aerosol containers, touchup bottles, touchup markers, marking pens, or 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 coatings applied in these operations is accomplished at essentially the same temperature as that used for curing the previously applied topcoat. Also referred to as high bake repair or high bake reprocess. In-line repair is considered part of the topcoat operation.

*Light-duty truck* means vans, sport utility vehicles, and motor vehicles designed primarily to transport light loads of property with gross vehicle weight rating of 8,500 lbs or less.

*Lower body anti-chip coating* means an *anti-chip coating* applied to lower body surfaces such as rocker panels, valence panels, lower portions of doors, or lower portions of fenders.

*Manufacturer's formulation data* means data on a material (such as a coating) that are supplied by the material manufacturer based on knowledge of the ingredients used to manufacture that material, rather than based on testing of the material with the test methods specified in §§63.3151 and 63.3161. Manufacturer's formulation data may include, but are not limited to, information on density, organic HAP content, volatile organic matter content, and coating solids content.

*Mass fraction of organic HAP* means the ratio of the mass of organic HAP to the mass of a material in which it is contained, expressed as kg of organic HAP per kg of material.

*Month* means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

*Organic HAP* content means the mass of organic HAP per mass of coating material.

*Other motor vehicle* means a self-propelled vehicle designed for transporting persons or property on a street or highway that has a gross vehicle weight rating over 8,500 pounds. You may choose to make the coating of other motor vehicles subject to this subpart pursuant to §63.3082(c).

*Other motor vehicle assembly plant* means a facility which assembles other motor vehicles, including coating facilities and processes.

*Paint line* means a set of coating operations which includes a topcoat operation and, if present, includes electrodeposition primer, primer-surfacer, final repair, glass bonding primer and glass bonding adhesive operations in which the same new automobile or new light-duty truck bodies, or body parts for new automobiles, or new light-duty trucks are coated. The most typical paint line consists of a set of electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, and glass bonding adhesive operations in which the same new automobile or new light-duty truck bodies are coated.

*Paint shop* means the collection of all areas at the facility in which new automobile or new light-duty truck bodies, or body parts for new automobiles or new light-duty trucks are phosphated and coated (including application, flash-off, drying and curing of electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer, glass bonding adhesive, deadener, adhesives and sealers); all coating operations added to the affected source pursuant to §63.3082(c); all areas at the facility in which substrates or equipment are cleaned relating to the coating of new automobile or new light-duty truck bodies, the coating of body parts for new automobiles or new light-duty trucks, or coating operations added to the affected source pursuant to §63.3082(c); and all areas at the facility used for storage, mixing, conveying and waste handling of coatings, thinners and cleaning materials related to the coating of new automobile or new light-duty truck bodies, the coating of body parts for new automobiles or new light-duty trucks, or coating operations added to the affected source pursuant to §63.3082(c). If there is no application of topcoat to new automobile or new light-duty truck bodies, or body parts for new automobiles or new light-duty trucks at the facility, then for purposes of this subpart the facility does not have a paint shop.

*Permanent total enclosure (PTE)* means a permanently installed enclosure that meets the criteria of Method 204 of appendix M, 40 CFR part 51, for a PTE and that directs all the exhaust gases from the enclosure to an add-on control device.

*Plastic or composites molding facility* means a facility where the purchase cost of capital equipment used for plastic or composites molding, including presses, tooling, and associated material processing and handling equipment, is greater than the purchase cost of capital equipment used for the surface coating of new automobile or new light-duty truck bodies or body parts for new automobiles or new light-duty trucks.

*Primer-surfacer* means an intermediate protective coating applied on the *electrodeposition primer* and under the *topcoat*. Primer-surfacer provides adhesion, protection, and appearance properties to the total finish. Primer-surfacer may also be called *guide coat* or *surfacer*. *Anti-chip coating* is a type of primer-surfacer.

*Purge/clean operation* means the process of flushing paint out and cleaning the spray lines when changing colors or to remove undesired material. It includes use of air and solvents to clean the lines.

*Purge capture* means the capture of purge solvent and materials into a closed collection system immediately after purging the system. It is used to prevent the release of organic HAP emissions and includes the disposal of the captured purge material.

*Purge material* means the coating and associated cleaning solvent materials expelled from the spray system during the process of cleaning the spray lines and applicators when color-changing or to maintain the cleanliness of the spray system.

*Protective oil* means an organic material that is applied to metal for the purpose of providing lubrication or protection from corrosion without forming a solid film. This definition of protective oil includes, but is not limited to, lubricating oils, evaporative oils (including those that evaporate completely), and extrusion oils.

*Research or laboratory operations* means surface coating for which the primary purpose is research and development of new processes and products, that is conducted under the close supervision of technically trained personnel, and that is not part of the manufacture of final or intermediate products for commercial purposes, except in a *de minimis* manner.

*Responsible official* means responsible official as defined in 40 CFR 70.2.

*Sealer* means a high solids, high viscosity material, generally, but not always, applied in the paint shop after the body has received an electrodeposition primer coating. The primary purpose of sealers is to fill body joints completely so that there is no intrusion of water, gases or corrosive materials into the passenger area of the body compartment. Also referred to as sealants.

*Spray booth* means a ventilated structure housing automatic and/or manual spray application equipment for coating operations. Includes facilities for the capture and entrapment of particulate overspray.

*Spray booth air seal* means an entry or entry vestibule to or exit or exit vestibule from a spray booth which isolates the spray booth from the area immediately preceding (for an entry or entry vestibule) or immediately following (for an exit or exit vestibule) the spray booth. No coating application or other VOC generating activity takes place in a spray booth air seal. Fresh air is supplied into a spray booth air seal and is then directed in part into the spray booth and in part into the area immediately preceding or immediately following the spray booth.

*Startup, initial* means the first time equipment is used in a facility to produce a salable product.

*Surface preparation* means use of a cleaning material on a portion of or all of a substrate. This includes use of a cleaning material to remove dried coating, which is sometimes called "depainting."

*Surfacer* means *Primer-surfacer*.

*Tack-wipe* means solvent impregnated cloth used to remove dust from surfaces prior to application of coatings.

*Temporary total enclosure* means an enclosure constructed for the purpose of measuring the capture efficiency of pollutants emitted from a given source as defined in Method 204 of appendix M, 40 CFR part 51.

*Thermal oxidizer* means a device for oxidizing air pollutants or waste materials via flame and heat.

*Thinner* means an organic solvent that is added to a coating after the coating is received from the supplier.

*Topcoat* means the final coating system applied to provide the final color and/or a protective finish. The topcoat may be a monocoat color or basecoat/clearcoat system. In-line repair and two-tone are part of topcoat.

*Total volatile hydrocarbon (TVH)* means the total amount of nonaqueous volatile organic matter determined according to Methods 204 and 204A through F of appendix M to 40 CFR part 51 and substituting the term TVH each place in the methods where the term VOC is used. The TVH includes both VOC and non-VOC.

*Touchup bottle* means a coating container with a volume of 0.25 liter or less used with a brush or other non-atomizing applicator.

*Transfer efficiency* means the ratio of the amount of coating solids deposited onto the surface of the object to the total amount of coating solids sprayed while applying the coating to the object.

*Uncontrolled coating operation* means a coating operation from which none of the organic HAP emissions are routed through an emission capture system and add-on control device.

*Underbody anti-chip coating* means an *anti-chip coating* applied to the underbody or wheel wells primarily for the purpose of protecting these areas of the vehicle from stone chipping.

*Volatile organic compound (VOC)* means any compound defined as VOC in 40 CFR 51.100(s).

*Volume fraction of coating solids* means the ratio of the volume of coating solids (also known as volume of nonvolatiles) to the volume of coating; liters of coating solids per liter of coating.

[69 FR 22623, Apr. 26, 2004, as amended at 71 FR 76927, Dec. 22, 2006; 72 FR 20236, Apr. 24, 2007]

**Table 1 to Subpart IIII of Part 63—Operating Limits for Capture Systems and Add-On Control Devices**

If you are required to comply with operating limits by §63.3093, you must comply with the applicable operating limits in the following table

<b>For the following device . . .</b>	<b>You must meet the following operating limit . . .</b>	<b>And you must demonstrate continuous compliance with the operating limit by</b>
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.3167(a)	i. Collecting the combustion temperature data according to §63.3168(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average combustion temperature at or above temperature limit.
2. Catalytic oxidizer	a. The average temperature measured just before the catalyst bed in any 3-hour period must not fall below the limit established according to §63.3167(b); and either	i. Collecting the temperature data according to §63.3168(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature before the catalyst bed at or above the temperature limit.
	b. Ensure that the average temperature difference across the catalyst bed in any 3-hour period does not fall below the temperature difference limit established according to §63.3167(b)(2); or	i. Collecting the temperature data according to §63.3168(c); ii. Reducing the data to 3-hour block averages; and iii. Maintaining the 3-hour average temperature difference at or above the temperature difference limit; or
	c. Develop and implement an inspection and maintenance plan according to §63.3167(b)(4)	i. Maintaining an up-to-date inspection maintenance plan, records of annual catalyst activity checks, records of monthly inspections of the oxidizer system, and records of the annual internal inspections of the catalyst bed. If a problem is discovered during a monthly or annual inspection required by §63.3167(b)(4), you must take corrective action as soon as practicable consistent with the manufacturer's recommendations.
3. Regenerative carbon adsorber	a. The total regeneration desorbing gas ( e.g., steam or nitrogen) mass flow for each carbon bed regeneration cycle must not fall below the total regeneration desorbing gas mass flow limit established according to §63.3167(c)	i. Measuring the total regeneration desorbing gas ( e.g., steam or nitrogen) mass flow for each regeneration cycle according to §63.3168(d); and ii. Maintaining the total regeneration desorbing gas mass flow at or above the mass flow limit.
	b. The temperature of the carbon bed after	i. Measuring the temperature of the carbon

	<p>completing each regeneration and any cooling cycle must not exceed the carbon bed temperature limit established according to §63.3167(c)</p>	<p>bed after completing each regeneration and any cooling cycle according to §63.3168(d); and</p> <p>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.</p>
4. Condenser	<p>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)</p>	<p>i. Collecting the condenser outlet (product side) gas temperature according to §63.3168(e);</p> <p>ii. Reducing the data to 3-hour block averages; and</p> <p>iii. Maintaining the 3-hour average gas temperature at the outlet at or below the temperature limit.</p>
5. Concentrators, including zeolite wheels and rotary carbon adsorbers	<p>a. The average desorption gas inlet temperature in any 3-hour period must not fall below the limit established according to §63.3167(e)</p>	<p>i. Collecting the temperature data according to §63.3168(f);</p> <p>ii. Reducing the data to 3-hour block averages; and</p> <p>iii. maintaining the 3-hour average temperature at or above the temperature limit.</p>
6. Emission capture system that is a PTE	<p>a. The direction of the air flow at all times must be into the enclosure; and either</p> <p>b. The average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or</p> <p>c. The pressure drop across the enclosure must be at least 0.007 inch water, as established in Method 204 of appendix M to 40 CFR part 51</p>	<p>i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.3168(g)(1) or the pressure drop across the enclosure according to §63.3168(g)(2); and</p> <p>ii. Maintaining the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.</p>
7. Emission capture system that is not a PTE	<p>a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to §63.3167(f). This applies only to capture devices that are not part of a PTE that meets the criteria of §63.3165(a) and that are not capturing emissions from a downdraft spray booth or from a flashoff area or bake oven associated with a downdraft spray booth</p>	<p>i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to §63.3168(g);</p> <p>ii. Reducing the data to 3-hour block averages; and</p> <p>iii. Maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit.</p>

[69 FR 22623, Apr. 26, 2004, as amended at 72 FR 20236, Apr. 24, 2007]

**Table 2 to Subpart 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 Conditions During Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§63.7(f)	Performance Test Requirements—Use of Alternative Test Method	Yes	Applies to all test methods except those used to determine capture system efficiency.
§63.7(g)–(h)	Performance Test Requirements—Data Analysis, Recordkeeping, Reporting, Waiver of Test	Yes	Applies only to performance tests for capture system and add-on control device efficiency at sources using these to comply with the standards.
§63.8(a)(1)–(3)	Monitoring Requirements—Applicability	Yes	Applies only to monitoring of capture system and add-on control device efficiency at sources using these to comply with the standards. Additional requirements for monitoring are specified in §63.3168.
§63.8(a)(4)	Additional Monitoring Requirements	No	Subpart IIII does not have monitoring requirements for flares.

§63.8(b)	Conduct of Monitoring	Yes	
63.8(c)(1)–(3)	Continuous Monitoring Systems (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)–(15)		Yes	
§63.10(d)(1)	General Reporting Requirements	Yes	Additional requirements are specified in §63.3120.
§63.10(d)(2)	Report of Performance Test Results	Yes	Additional requirements are specified in §63.3120(b).
§63.10(d)(3)	Reporting Opacity or Visible Emissions Observations	No	Subpart IIII does not require opacity or visible emissions observations.
§63.10(d)(4)	Progress Reports for Sources With Compliance Extensions	Yes.	
§63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	Yes	Applies only to capture systems and add-on control devices used to comply with the standards.
§63.10(e)(1)–(2)	Additional CMS Reports	No	Subpart IIII does not require the use of continuous emissions monitoring systems.
§63.10(e)(3)	Excess Emissions/CMS Performance Reports	No	Section 63.3120(b) specifies the contents of periodic compliance reports.

§63.10(e)(4)	COMS Data Reports	No	Subpart IIII does not specify requirements for opacity or COMS.
§63.10(f)	Recordkeeping/Reporting Waiver	Yes	
§63.11	Control Device Requirements/Flares	No	Subpart IIII does not specify use of flares for compliance.
§63.12	State Authority and Delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by Reference	Yes.	
§63.15	Availability of Information/Confidentiality	Yes.	

**Table 3 to Subpart IIII of Part 63—Default Organic HAP Mass Fraction for Solvents and Solvent Blends**

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data

Solvent/solvent blend	CAS. No.	Average organic HAP mass fraction	Typical organic HAP, percent by mass
1. Toluene	108-88-3	1.0	Toluene.
2. Xylene(s)	1330-20-7	1.0	Xylenes, ethylbenzene.
3. Hexane	110-54-3	0.5	n-hexane.
4. n-Hexane	110-54-3	1.0	n-hexane.
5. Ethylbenzene	100-41-4	1.0	Ethylbenzene.
6. Aliphatic 140		0	None.
7. Aromatic 100		0.02	1% xylene, 1% cumene.
8. Aromatic 150		0.09	Naphthalene.
9. Aromatic naphtha	64742-95-6	0.02	1% xylene, 1% cumene.
10. Aromatic solvent	64742-94-5	0.1	Naphthalene.
11. Exempt mineral spirits	8032-32-4	0	None.
12. 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 <sup>®</sup> solvent	8052-49-3	0.01	0.5% xylenes, 0.5% ethylbenzene.
21. VM & P naphtha	64742-89-8	0.06	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477-31-6	0.08	4% naphthalene, 4% biphenyl.

**Table 4 to Subpart IIII of Part 63—Default Organic HAP Mass Fraction for Petroleum Solvent Groups<sup>a</sup>**

You may use the mass fraction values in the following table for solvent blends for which you do not have test data or manufacturer's formulation data

Solvent type	Average organic HAP mass fraction	Typical organic HAP, percent by mass
Aliphatic <sup>b</sup>	0.03	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic <sup>c</sup>	0.06	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

<sup>a</sup>Use this table only if the solvent blend does not match any of the solvent blends in Table 3 to this subpart, and you only know whether the blend is aliphatic or aromatic.

<sup>b</sup> *E.g.* , Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naphtha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.

<sup>c</sup> *E.g.* , Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.

**Appendix A to Subpart IIII of Part 63—Determination of Capture Efficiency of Automobile and Light-Duty Truck Spray Booth Emissions From Solvent-borne Coatings Using Panel Testing**

1.0 Applicability, Principle, and Summary of Procedure.

1.1 Applicability.

This procedure applies to the determination of capture efficiency of automobile and light-duty truck spray booth emissions from solvent-borne coatings using panel testing. This procedure can be used to determine capture efficiency for partially controlled spray booths ( *e.g.*, automated spray zones controlled and manual spray zones not controlled) and for fully controlled spray booths.

1.2 Principle.

1.2.1 The volatile organic compounds (VOC) associated with the coating solids deposited on a part (or panel) in a controlled spray booth zone (or group of contiguous controlled spray booth zones) partition themselves between the VOC that volatilize in the controlled spray booth zone (principally between the spray gun and the part) and the VOC that remain on the part (or panel) when the part (or panel) leaves the controlled spray booth zone. For solvent-borne coatings essentially all of the VOC associated with the coating solids deposited on a part (or panel) in a controlled spray booth zone that volatilize in the controlled spray booth zone pass through the waterwash and are exhausted from the controlled spray booth zone to the control device.

1.2.2 The VOC associated with the overspray coating solids in a controlled spray booth zone partition themselves between the VOC that volatilize in the controlled spray booth zone and the VOC that are still tied

to the overspray coating solids when the overspray coating solids hit the waterwash. For solvent-borne coatings almost all of the VOC associated with the overspray coating solids that volatilize in the controlled spray booth zone pass through the waterwash and are exhausted from the controlled spray booth zone to the control device. The exact fate of the VOC still tied to the overspray coating solids when the overspray coating solids hit the waterwash is unknown. This procedure assumes that none of the VOC still tied to the overspray coating solids when the overspray coating solids hit the waterwash are captured and delivered to the control device. Much of this VOC may become entrained in the water along with the overspray coating solids. Most of the VOC that become entrained in the water along with the overspray coating solids leave the water, but the point at which this VOC leave the water is unknown. Some of the VOC still tied to the overspray coating solids when the overspray coating solids hit the waterwash may pass through the waterwash and be exhausted from the controlled spray booth zone to the control device.

1.2.3 This procedure assumes that the portion of the VOC associated with the overspray coating solids in a controlled spray booth zone that volatilizes in the controlled spray booth zone, passes through the waterwash and is exhausted from the controlled spray booth zone to the control device is equal to the portion of the VOC associated with the coating solids deposited on a part (or panel) in that controlled spray booth zone that volatilizes in the controlled spray booth zone, passes through the waterwash, and is exhausted from the controlled spray booth zone to the control device. This assumption is equivalent to treating all of the coating solids sprayed in the controlled spray booth zone as if they are deposited coating solids (*i.e.*, assuming 100 percent transfer efficiency) for purposes of using a panel test to determine spray booth capture efficiency.

1.2.4 This is a conservative (low) assumption for the portion of the VOC associated with the overspray coating solids in a controlled spray booth zone that volatilizes in the controlled spray booth zone. Thus, this assumption results in an underestimate of conservative capture efficiency. The overspray coating solids have more travel time and distance from the spray gun to the waterwash than the deposited coating solids have between the spray gun and the part (or panel). Therefore, the portion of the VOC associated with the overspray coating solids in a controlled spray booth zone that volatilizes in the controlled spray booth zone should be greater than the portion of the VOC associated with the coating solids deposited on a part (or panel) in that controlled spray booth zone that volatilizes in that controlled spray booth zone.

### 1.3 Summary of Procedure.

1.3.1 A panel test is performed to determine the mass of VOC that remains on the panel when the panel leaves a controlled spray booth zone. The total mass of VOC associated with the coating solids deposited on the panel is calculated.

1.3.2 The percent of the total VOC associated with the coating solids deposited on the panel in the controlled spray booth zone that remains on the panel when the panel leaves the controlled section of the spray booth is then calculated from the ratio of the two previously determined masses. The percent of the total VOC associated with the coating solids deposited on the panel in the controlled spray booth zone that is captured and delivered to the control device equals 100 minus this percentage. (The mass of VOC associated with the coating solids deposited on the panel which is volatilized and captured in the controlled spray booth zone equals the difference between the total mass of VOC associated with the coating solids deposited on the panel and the mass of VOC remaining with the coating solids deposited on the panel when the panel leaves the controlled spray booth zone.)

1.3.3 The percent of the total VOC associated with the coating sprayed in the controlled spray booth zone that is captured and delivered to the control device is assumed to be equal to the percent of the total VOC associated with the coating solids deposited on the panel in the controlled spray booth zone that is captured and delivered to the control device. The percent of the total VOC associated with the coating sprayed in the entire spray booth that is captured and delivered to the control device can be calculated by multiplying the percent of the total VOC associated with the coating sprayed in the controlled spray booth zone that is captured and delivered to the control device by the fraction of coating sprayed in the spray booth that is sprayed in the controlled spray booth zone.

## 2.0 Procedure.

2.1 You may conduct panel testing to determine the capture efficiency of spray booth emissions. You must follow the instructions and calculations in this appendix A, and use the panel testing procedures in ASTM Method D5087-02, "Standard Test Method for Determining Amount of Volatile Organic Compound (VOC) Released from Solventborne Automotive Coatings and Available for Removal in a VOC Control Device (Abatement)" (incorporated by reference, see §63.14), or the guidelines presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). You must weigh panels at the points described in section 2.5 of this appendix A and perform calculations as described in sections 3 and 4 of this appendix A. You may conduct panel tests on the production paint line in your facility or in a laboratory simulation of the production paint line in your facility.

2.2 You may conduct panel testing on representative coatings as described in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22). If you panel test representative coatings, then you may calculate either a unique percent capture efficiency value for each coating grouped with that representative coating, or a composite percent capture efficiency value for the group of coatings. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency value for that coating.

## 2.3 Identification of Controlled Spray Booth Zones.

You must identify each controlled spray booth zone or each group of contiguous controlled spray booth zones to be tested. (For example, a controlled bell zone immediately followed by a controlled robotic zone.) Separate panel tests are required for non-contiguous controlled spray booth zones. The flash zone between the last basecoat zone and the first clearcoat zone makes these zones non-contiguous.

## 2.4 Where to Apply Coating to the Panel.

If you are conducting a panel test for a single controlled spray booth zone, then you must apply coating to the panel only in that controlled spray booth zone. If you are conducting a panel test for a group of contiguous controlled spray booth zones, then you must apply coating to the panel only in that group of contiguous controlled spray booth zones.

## 2.5 How to Process and When to Weigh the Panel.

The instructions in this section pertain to panel testing of coating, *i*, or of the coating representing the group of coatings that includes coating, *i*.

2.5.1 You must weigh the blank panel. (Same as in bake oven panel test.) The mass of the blank panel is represented by  $W_{\text{blank},i}$ (grams).

2.5.2 Apply coating, *i*, or the coating representing coating, *i*, to the panel in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested (in plant test), or in a simulation of the controlled spray booth zone or group of contiguous controlled spray booth zones being tested (laboratory test).

2.5.3 Remove and weigh the wet panel as soon as the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested. (Different than bake oven panel test.) This weighing must be conducted quickly to avoid further evaporation of VOC. The mass of the wet panel is represented by  $W_{\text{wet},i}$ (grams).

2.5.4 Return the wet panel to the point in the coating process or simulation of the coating process where it was removed for weighing.

2.5.5 Allow the panel to travel through the rest of the coating process in the plant or laboratory simulation of the coating process. You must not apply any more coating to the panel after it leaves the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested. The rest of the coating process or simulation of the coating process consists of:

2.5.5.1 All of the spray booth zone(s) or simulation of all of the spray booth zone(s) located after the controlled spray booth zone or group of contiguous controlled spray booth zones being tested and before the bake oven where the coating applied to the panel is cured,

2.5.5.2 All of the flash-off area(s) or simulation of all of the flash-off area(s) located after the controlled spray booth zone or group of contiguous controlled spray booth zones being tested and before the bake oven where the coating applied to the panel is cured, and

2.5.5.3 The bake oven or simulation of the bake oven where the coating applied to the panel is cured.

2.5.6 After the panel exits the bake oven, you must cool and weigh the baked panel. (Same as in bake oven panel test.) The mass of the baked panel is represented by  $W_{baked,i}$ (grams).

### 3.0 Panel Calculations.

The instructions in this section pertain to panel testing of coating, i, or of the coating representing the group of coatings that includes coating, i.

3.1 The mass of coating solids (from coating, i, or from the coating representing coating, i, in the panel test) deposited on the panel equals the mass of the baked panel minus the mass of the blank panel as shown in Equation A-1.

$$W_{dep,i} = W_{baked,i} - W_{blank,i} \quad (\text{Eq. A-1})$$

Where:

$W_{dep,i}$ = Mass of coating solids (from coating, i, or from the coating representing coating, i, in the panel test) deposited on the panel, grams.

3.2 The mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested equals the mass of the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested minus the mass of the baked panel as shown in Equation A-2.

$$W_{rem,i} = W_{wet,i} - W_{baked,i} \quad (\text{Eq. A-2})$$

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.

$$P_{m,i} = (W_{rem,i}) / (W_{dep,i}) \quad (Eq. A-3)$$

Where:

$P_{m,i}$  = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested per mass of coating solids deposited on the panel, grams of VOC remaining per gram of coating solids deposited.

$W_{rem,i}$  = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, grams.

$W_{dep,i}$  = Mass of coating solids (from coating, i, or from the coating representing coating, i, in the panel test) deposited on the panel, grams.

#### 4.0 Converting Panel Result to Percent Capture.

The instructions in this section pertain to panel testing of for coating, i, or of the coating representing the group of coatings that includes coating, i.

4.1 If you panel test representative coatings, then you may convert the panel test result for each representative coating from section 3.3 of this appendix A either to a unique percent capture efficiency value for each coating grouped with that representative coating by using coating specific values for the mass fraction coating solids and mass fraction VOC in section 4.2 of this appendix A, or to a composite percent capture efficiency value for the group of coatings by using the average values for the group of coatings for mass fraction coating solids and mass fraction VOC in section 4.2 of this appendix A. If you panel test each coating, then you must convert the panel test result for each coating to a unique percent capture efficiency value by using coating specific values for the mass fraction coating solids and mass fraction VOC in section 4.2 of this appendix A. The mass fraction of VOC in the coating and the mass fraction of solids in the coating must be determined by Method 24 (appendix A to 40 CFR part 60) or by following the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).

4.2 The percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the coating solids deposited on the panel that remains on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested is calculated using Equation A-4.

$$P_{voc,pan,i} = (P_{m,i}) (W_{s,i}) (100) / (W_{voc,c,i}) \quad (Eq. A-4)$$

Where:

$P_{voc,pan,i}$  = Percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the coating solids deposited on the panel that remains on the wet panel when the wet panel leaves the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested, percent.

$P_{m,i}$  = Mass of VOC (from coating, i, or from the coating representing coating, i, in the panel test) remaining on the wet panel when the wet panel leaves the controlled spray booth zone or group of contiguous controlled spray booth zones being tested per mass of coating solids deposited on the panel, grams of VOC remaining per gram of coating solids deposited.

$W_{s,i}$  = Mass fraction of coating solids for coating, i, or average mass fraction of coating solids for the group of coatings including coating, i, grams coating solids per gram coating, determined by Method 24 (appendix A to 40 CFR part 60) or by following the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).

$W_{voc,i}$  = Mass fraction of VOC in coating, i, or average mass fraction of VOC for the group of coatings including coating, i, grams VOC per grams coating, determined by Method 24 (appendix A to 40 CFR part 60) or the guidelines for combining analytical VOC content and formulation solvent content presented in "Protocol for Determining Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations," EPA-450/3-88-018 (Docket ID No. OAR-2002-0093 and Docket ID No. A-2001-22).

4.3 The percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the coating sprayed in the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested that is captured in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested,  $CE_{zone,i}$  (percent), is calculated using Equation A-5.

$$CE_{zone,i} = 100 - P_{voc_{gun,i}} \quad (Eq. A-5)$$

Where:

$CE_{zone,i}$  = Capture efficiency for coating, i, or for the group of coatings including coating, i, in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested as a percentage of the VOC in the coating, i, or of the group of coatings including coating, i, sprayed in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, percent.

4.4 Calculate the percent of VOC for coating, i, or composite percent of VOC for the group of coatings including coating, i, associated with the entire volume of coating, i, or with the total volume of all of the coatings grouped with coating, i, sprayed in the entire spray booth that is captured in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, using Equation A-6. The volume of coating, i, or of the group of coatings including coating, i, sprayed in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, and the volume of coating, i, or of the group of coatings including coating, i, sprayed in the entire spray booth may be determined from gun on times and fluid flow rates or from direct measurements of coating usage.

$$CE_i = (CE_{zone,i})(V_{zone,i}) / (V_{booth,i}) \quad S(Eq. A-6)$$

Where:

$CE_i$  = Capture efficiency for coating, i, or for the group of coatings including coating, i, in the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested as a percentage of the VOC in the coating, i, or of the group of coatings including coating, i, sprayed in the entire spray booth in which the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested, percent.

$V_{zone,i}$  = Volume of coating, i, or of the group of coatings including coating, i, sprayed in the controlled spray booth zone or group of contiguous controlled spray booth zones being tested, liters.

$V_{booth,i}$  = Volume of coating, i, or of the group of coatings including coating, i, sprayed in the entire spray booth containing the controlled spray booth zone (or group of contiguous controlled spray booth zones) being tested, liters.

4.5 If you conduct multiple panel tests for the same coating or same group of coatings in the same spray booth (either because the coating or group of coatings is controlled in non-contiguous zones of the spray booth, or because you choose to conduct separate panel tests for contiguous controlled spray booth zones), then you may add the result from section 4.4 for each such panel test to get the total capture efficiency for the coating or group of coatings over all of the controlled zones in the spray booth for the coating or group of coatings.

**Indiana Department of Environmental Management  
Office of Air Quality**

Addendum to the Technical Support Document (TSD)  
for a Part 70 Operating Permit Renewal

**Source Description and Location**

<b>Source Name:</b>	<b>General Motors Corporation - Truck Group</b>
<b>Source Location:</b>	<b>12200 LaFayette Center Road, Roanoke, IN 46783</b>
<b>County:</b>	<b>Allen</b>
<b>SIC Code:</b>	<b>3711</b>
<b>Permit Renewal No.:</b>	<b>T 003-23379-00036</b>
<b>Permit Reviewer:</b>	<b>Laura Spriggs</b>

**Public Notice Information**

On November 18, 2008, the Office of Air Quality (OAQ) had a notice published in the *Fort Wayne Journal Gazette News Sentinel* in Fort Wayne, Indiana, stating that General Motors Corporation - Truck Group had applied for a Part 70 Operating Permit renewal. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

**Comments Received**

On December 11, 2008 OAQ received comments from Nicholos M. Ramos of General Motors Corporation. The comments are summarized in the subsequent pages, with IDEM's corresponding responses.

The IDEM does not amend the Technical Support Document (TSD). The TSD is maintained to document the original review. This addendum to the TSD is used to document responses to comments and changes made from the time the permit was drafted until a final decision is made.

The summary of the comments and IDEM, OAQ responses, including changes to the permit (language deleted is shown in ~~strikeout~~ and language added is shown in **bold**) are as follows:

**Comment #1**

**Condition D.1.1(c)(1) - PSD BACT**

GM requests the following change to the unit of measure below. GM prefers the units to be written as in the current Title V permit.

*No. 2 fuel oil usage shall not exceed 3.2 million gallons per twelve (12) consecutive month period and fuel sulfur content shall not exceed 0.49%, with compliance determined at the end of each month. Compliance with this limit, combined with a fuel oil heating value of ~~140 MM Btu per kilogallon~~ 140,000 Btu/gallon of No. 2 fuel oil and the netting analysis conducted in CP (003) 003-2524 shall limit SO<sub>2</sub> and NO<sub>x</sub> net emissions from Boiler 005 to less than 40 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable.*

## IDEM Response #1

IDEM, OAQ agrees to make the requested change. The permit has been revised as follows:

### D.1.1 Prevention of Significant Deterioration (PSD) Best Available Control Technology (BACT) [326 IAC 2-2]

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Pursuant to Permit PSD (02) No. 1575, issued on November 30, 1984; CP (003) No. 2000, issued on September 9, 1991; CP No. 003-2524, issued on October 13, 1992; and 326 IAC 2-2 PSD BACT:

- (a) \* \* \*
- (b) \* \* \*
- (c) for Boiler 005:
  - (1) No. 2 fuel oil usage shall not exceed 3.2 million gallons per twelve (12) consecutive month period and fuel sulfur content shall not exceed 0.49%, with compliance determined at the end of each month. Compliance with this limit, combined with a fuel oil heating value of ~~140 MMBtu per kilogallon~~ **140,000 Btu per gallon** of No. 2 fuel oil and the netting analysis conducted in CP (003) 003-2524 shall limit SO<sub>2</sub> and NO<sub>x</sub> net emissions from Boiler 005 to less than 40 tons per twelve (12) consecutive month period and render 326 IAC 2-2 not applicable.
  - (2) \* \* \*

## Comment #2

### Condition D.1.12 - Reporting Requirements

GM requests that the submittal of the quarterly reporting forms for D.1.1 compliance demonstration at the end of the permit only be required when No.2 fuel oil is used. The following language is suggested:

*A quarterly summary of the information to document compliance with Condition D.1.1 and D.1.5 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. Forms required to document compliance with Condition 1.1 shall only be submitted if No. 2 fuel oil was used that quarter. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).*

## IDEM Response #2

IDEM, OAQ requires that the reporting form be submitted even if No. 2 fuel oil was not used in a reporting period. If no reporting form is submitted, it would be unclear whether No. 2 fuel oil was not used that reporting period or if the Permittee failed to submit the required reporting form. IDEM, OAQ agrees to allow for semi-annual reporting of No. 2 fuel oil usage. The permit has been revised as follows:

### D.1.12 Reporting Requirements

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- (a) **A semi-annual summary of the information to document compliance with Conditions D.1.1(b)(1) and D.1.1(c)(1) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting**

**forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).**

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

(b)(c) The natural gas fired boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, 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).

~~(c)~~(d) The Permittee shall submit NOx CEM performance audit reports pursuant to 326 IAC 3-5-5(e).

\* \* \* \* \*

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

~~Part 70 Quarterly~~ **Semi-Annual Report**

Source Name: General Motors Corporation - Truck Group  
 Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
 Mailing Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
 Part 70 Permit No.: T 003-23379-00036  
 Facility: Boiler 004  
 Parameter: No. 2 fuel oil usage (Fuel Oil Sulfur Content Limit 0.49%)  
 Limit: Shall not exceed 1.1 million gallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

~~QUARTER~~ Months : \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	No. 2 Fuel Oil Usage (Million Gallons)	No. 2 Fuel Oil Usage (Million Gallons)	No. 2 Fuel Oil Usage (Million Gallons)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			
<b>Month 4</b>			

<b>Month 5</b>			
<b>Month 6</b>			

- No deviation occurred in this ~~quarter~~ **semi-annual period**.
- Deviation/s occurred in this ~~quarter~~ **semi-annual period**.  
 Deviation has been reported on: \_\_\_\_\_
- Submitted by: \_\_\_\_\_
- Title / Position: \_\_\_\_\_
- Signature: \_\_\_\_\_
- Date: \_\_\_\_\_
- Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

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

**Part 70 ~~Quarterly~~ Semi-Annual Report**

Source Name: General Motors Corporation - Truck Group  
 Source Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
 Mailing Address: 12200 Lafayette Center Road, Roanoke, Indiana 46783  
 Part 70 Permit No.: T 003-23379-00036  
 Facility: Boiler 005  
 Parameter: No. 2 fuel oil usage (Fuel Oil Sulfur Content Limit 0.49%)  
 Limit: Shall not exceed 3.2 million gallons per twelve (12) consecutive month period,  
 with compliance determined at the end of each month.

**QUARTER Months :** \_\_\_\_\_ **YEAR:** \_\_\_\_\_

Month	No. 2 Fuel Oil Usage (Million Gallons)	No. 2 Fuel Oil Usage (Million Gallons)	No. 2 Fuel Oil Usage (Million Gallons)
	This Month	Previous 11 Months	12 Month Total
Month 1			

Month 2			
Month 3			
<b>Month 4</b>			
<b>Month 5</b>			
<b>Month 6</b>			

No deviation occurred in this ~~quarter~~ **semi-annual period**.

Deviation/s occurred in this ~~quarter~~ **semi-annual period**.

Deviation has been reported on: \_\_\_\_\_

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

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

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

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

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

Attach a signed certification to complete this report.

**Comment #3**

**Condition D.2.2(c) - Automobile and Light Duty Truck Coating Operations**

GM is requesting that the newly added Emission Limitations and Standards in Section D.2.2(c) for ELPO and Final Repair operations be removed from the permit. GM will continue to comply with the RACT limits of 1.9 pounds per gallon VOC for ELPO and 4.8 pounds per gallon VOC for Final Repair as set forth in D.2.2(a) and 326 IAC 8-2-2 for Automobile and light duty truck coating operations. ELPO and Final Repair are not intended to be limited using equivalent emissions pursuant to 326 IAC 8-1-2(b). We did not request an equivalent limit and there is no substantive authority for IDEM on its own initiative to create new requirements in our permit. As you know, Title V does not impose new substantive limits. Moreover, we have never seen ELPO and Final Repair equivalent emissions in permits in the past. It is inappropriate and should be deleted from the permit.

**IDEM Response #3**

While equivalent emission limitations pursuant to 326 IAC 8-1-2(b) have been established for ELPO and Final Repair operations at other facilities, IDEM, OAQ agrees that they are not required if the Permittee does not request them. The equivalent emission limitations for the ELPO and Final Repair operations shall be removed. In addition, paragraph (b) of Condition D.2.2 has been revised to include that compliance with the 326 IAC 8-2-2 limits may be achieved

through daily averaging. Condition D.2.7 now includes equations for determining daily averaging if necessary. The permit has been revised as follows:

D.2.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-1-2]

(a) \* \* \*

(b) Pursuant to 326 IAC 8-1-2(a) the emission limitations specified in D.2.2(a), shall be achieved through one or any combination of thermal incineration, higher solids (low solvent) coatings, water borne coatings and/or **daily averaging** ~~an equivalent emission limitation.~~

~~(c) Pursuant to 326 IAC 8-1-2(b), VOC emissions as allowed in Condition D.2.2(a) from the ELPO Dipping System (006) and the Final Repair Operation (012) shall be limited to no greater than the equivalent emissions of 2.6 pounds of VOC per gallon of coating solids and 13.8 pounds of VOC per gallon of coating solids, respectively. This equivalency was determined by the following equation:~~

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

~~Where: L = Applicable emission limit in pounds of VOC per gallon of coating.~~

~~D = Density of VOC in coating in pounds per gallon of VOC.~~

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

~~A solvent density of seven and thirty-six hundredths (7.36) pounds of VOC per gallon of solvent shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit. Actual solvent density shall be used to determine compliance.~~

~~(d)~~**(c)** Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitation in D.2.2(a)(1), the overall efficiency of the ELPO Dipping System (006) thermal oxidizers shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = 100 \times (V - E) / V$$

Where:

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

E = Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied, **where E = L / [1 - (L / D)], and**

**L = Applicable emission limit in pounds of VOC per gallon of coating.**

**D = Density of VOC in coating in pounds per gallon of VOC.**

**E = Equivalent emission limit in pounds of VOC**

**per gallon of coating solids as applied.**

**A solvent density of seven and thirty-six hundredths (7.36) pounds of VOC per gallon of solvent shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit. Actual solvent density shall be used to determine compliance; and**

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

\* \* \*

**D.2.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]**

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**(a)** Compliance with the VOC contents contained in Conditions D.2.2 and D.2.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

**(b)** **When daily averaging is used to comply with the emission limitations in Condition D.2.2(a), one of the following equations shall be used to determine the volume weighted average of coatings on a daily basis:**

**(1)** **When a thermal oxidizer is used to demonstrate compliance with an emission limitation, the daily volume weighted average shall be determined as follows:**

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

**Where:**

- A =** daily volume weighted average, lb VOC/gal, less water
- C =** VOC content of coating i, lb VOC/gal, less water
- 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 thermal oxidizer
- DRE =** destruction/removal efficiency of thermal oxidizer

**(2)** **When a thermal oxidizer is not used to demonstrate compliance with an emission limitation, the daily volume weighted average shall be determined as follows:**

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

Where:

- A =** daily volume weighted average, lb VOC/gal, less water  
**C =** VOC content of coating i, lb VOC/gal, less water  
**U =** actual coating i usage, gal/day  
**n =** no. of coatings used during the day

#### Comment #4

##### Condition D.2.3(c) - Miscellaneous Metal Coating Operations

As required in 326 IAC 8-2-9, GM will continue to comply with the Miscellaneous Metal Coating limit of 3.5 pound of VOC per gallon of coating, excluding water, as delivered to the applicator for the Miscellaneous Sealers and Adhesives emission unit. GM is requesting that the newly added equivalent emission limit in D.2.3(c) be reworded to demonstrate equivalent emissions per 326 IAC 8-1-2(b) as applicable. Demonstration of this equivalent emission unit is not necessary since GM is complying with the limit specified in D.2.3(a) (326 IAC 8-2-9). As currently written in the draft permit, records of this demonstration must be maintained.

#### IDEM Response #4

IDEM, OAQ agrees to include that the equivalent emission limitation may be applied as applicable. The equivalent emission limitation has been changed to reflect what is allowed for miscellaneous metal coating operations pursuant to 326 IAC 8-1-2(a)(5). The permit has been revised as follows:

##### D.2.3 Miscellaneous Metal Coating Operations [326 IAC 8-2-9]

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(a) \* \* \*

(b) \* \* \*

(c) Pursuant to 326 IAC 8-1-2(a)(5), when using an equivalent emission limitation to comply with Condition D.2.3(a), the VOC emissions from the Miscellaneous Sealers and Adhesives (009) shall be limited to no greater than 1.34 kilograms of VOC per liter solids deposited (11.2 pounds per gallon solids deposited) based on an actual measured transfer efficiency greater than 60%. Compliance with the equivalent emission limitation shall be determined according to the following equation:

$$E = \frac{L}{[(1 - (L/D)) \cdot T]}$$

Where:

- E =** Actual emissions in pounds of VOC per gallon of coating solids deposited  
**L =** Actual VOC content in pounds of VOC per gallon of coating, as applied, excluding water and nonphotochemically reactive hydrocarbons

**D = Actual density of the VOC in the coating in pounds per gallon of VOC**  
**T = Actual measured transfer efficiency**

~~Pursuant to 326 IAC 8-1-2(b), VOC emissions as allowed in Condition D.2.3(a) from the Miscellaneous Sealers and Adhesives (009) shall be limited to no greater than the equivalent emissions of 6.7 pounds of VOC per gallon of coating solids. This equivalency was determined by the following equation:~~

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

~~Where: L = Applicable emission limit in pounds of VOC per gallon of coating.~~

~~D = Density of VOC in coating in pounds per gallon of VOC.~~

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

~~A solvent density of seven and thirty-six hundredths (7.36) pounds of VOC per gallon of solvent shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit. Actual solvent density shall be used to determine compliance.~~

(d) \* \* \*

*Note: An additional record keeping requirement for daily weighted average, as applicable, has been included in Condition D.2.12, as shown in the permit changes shown in IDEM Response #9.*

## Comment #5

### Conditions D.2.10, D.3.9, and D.4.9 - Thermal and Catalytic Oxidizer Temperatures

General Motors objects to these changes to the permit.

- (a) First, the term continuous is defined in the Part 60 regulations as once every 15 minutes. The SIP uses Part 60 as a reference and thus continuous is defined as recording every 15 minutes. Changing the frequency to every 60 seconds and requiring the averaging to be done among 180 data points instead of 12 data points represents a substantive change in the emission standard which is not authorized under Title V. Moreover, even if this was authorized, which it is not, it is even more stringent than the Compliance Assurance Monitoring rule, 40 CFR Part 64, which clearly states that continuous monitoring is once every 15 minutes. We are perplexed by your insertion of this provision.
- (b) We also object to the imposition of the temperature level as a hard and fast limit. This creates a new substantive requirement on the source which is not permitted under Title V. The prior provision was crafted specifically to avoid this problem. We are happy to report when there is a temperature excursion but an excursion on temperature does not necessarily indicate a violation of the emission limit. This was the fundamental basis of the CAM rule and it is paradoxical that regular Title V monitoring would now be more stringent than CAM by transforming stack test temperatures into never to be exceeded limits. Please return to the prior language in the permit which was (1) enforceable and (2) not in violation of the fundamental principles of Title V and CAM.

## IDEM Response #5

- (a) IDEM, OAQ agrees that continuous monitoring pursuant to CAM should be performed once every 15 minutes instead of once per minute.
- (b) The temperature level is not a limit, but rather a method of assuring continuous compliance for demonstrating the destruction efficiency of the oxidizers. During testing, the destruction efficiency of the oxidizers is established at a given temperature. If the oxidizer temperature falls below the temperature determined during testing, IDEM, OAQ cannot verify the destruction efficiency of the oxidizer for compliance purposes. IDEM, OAQ does not require that each 15-minute temperature reading be above the testing temperature, but rather allows that a 3-hour average temperature be maintained above the testing temperature. If the 3-hour average temperature falls below the testing temperature, it is not automatically a deviation of the permit. The Permittee must follow Condition C.16 - Response to Excursions or Exceedances. Failure to take response steps in accordance with Condition C.16 would be a deviation of the permit. Language shall be added to make this clear. The permit has been revised as follows:

### D.2.10 Thermal Oxidizer Temperature [40 CFR 64]

---

The following requirements shall apply only if the VOC reduction credit for the incinerators is used to show compliance with Conditions D.2.1 and/or D.2.2:

- (a) A continuous monitoring system shall be calibrated and maintained on each thermal and catalytic oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per **fifteen (15) minutes**. The output of this system shall be recorded as a 3-hour average.
- (b) \* \* \*
- (c) ~~On and after the date the approved stack test results are available, the~~ **The** Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the **most recent** compliant stack test. **If the 3-hour average temperature falls below the level observed during the most recent valid compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.**

\* \* \* \* \*

### D.3.9 Thermal Oxidizer Temperature [40 CFR 64]

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The following requirements shall apply only if the regenerative thermal oxidizer is used to show compliance with Conditions D.3.1 and/or D.3.2:

- (a) A continuous monitoring system shall be calibrated and maintained on the regenerative thermal oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per **fifteen (15) minutes**. The output of this system shall be recorded as a 3-hour average.
- (b) \* \* \*
- (c) ~~On and after the date the approved stack test results are available, the~~ **The** Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as

observed during the **most recent** compliant stack test. **If the 3-hour average temperature falls below the level observed during the most recent valid compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.**

\* \* \* \* \*

#### D.4.9 Catalytic Oxidizer Temperature [40 CFR 64]

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The following requirements shall apply only if the VOC reduction credit from the catalytic oxidizers is used to show compliance with Conditions D.4.1 and/or D.4.2:

- (a) A temperature measurement device shall be installed in the gas stream immediately before and after the catalyst bed. A continuous monitoring system shall be calibrated and maintained on each catalytic oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per **fifteen (15)** minutes. The output of this system shall be recorded as a 3-hour average.
- (b) \* \* \*
- (c) ~~On and after the date the approved stack test results are available, the~~ **The** Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature as observed during the **most recent** compliant stack test. **If the 3-hour average temperature falls below the level observed during the most recent valid compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A 3-hour average temperature reading that is below the level observed during the most recent valid compliant stack test is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.**

#### Comment #6

##### **Conditions D.2.11, D.3.10, and D.4.10 - Parametric Monitoring**

Conditions D.2.11, D.3.10, and D.4.10 should be eliminated since the conditions do not directly indicate proper operation of the thermal incinerator (RTO) system. RTO Parametric Monitoring requirements for 40 CFR 64 are met by RTO combustion chamber temperature monitoring requirements in Conditions D.2.10, D.3.9, and D.4.9. Even if it were an appropriate monitoring parameter, there is no authority for IDEM to create new substantive limits on the operation of the source which would create a violation of the permit if we deviated from them.

It should be noted that upon equipment start up the thermal incinerator operates with ambient fresh intake air rather than paint shop exhaust. This procedure is required to meet NFPA fire safety codes. Therefore monitoring of particular duct pressure or fan amperage has no bearing on proper operation of the incinerator or even if the system is treating paint booth exhaust. Furthermore the RTO can operate effectively in a wide envelope of duct pressures or fan amperages depending on a variety of factors including paint booth air balance and downdraft velocities, the number of paint booths in operation, bearing wear, oven temperature, etc.

*D.2.11 Parametric Monitoring [40 CFR 64]*

*The following requirements shall apply only if the VOC reduction credit for the thermal incinerators is used to show compliance with Conditions D.2.1 and/or D.2.2*

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

*(b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in the most recent compliant stack test.*

## IDEM Response #6

Parametric monitoring is necessary to demonstrate capture efficiency in order to show that the control device is working properly to meet applicable provisions, as needed. Alternative monitoring to duct pressure or fan amperage may be proposed by the Permittee to demonstrate appropriate capture efficiency and functioning of the control device. Based on proposed language from the Permittee and internal discussions, the permit has been revised as follows:

### D.2.11 Parametric Monitoring [40 CFR 64]

---

The following requirements shall apply only if the VOC reduction credit for the thermal incinerators is used to show compliance with Conditions D.2.1 and/or D.2.2:

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

~~(b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in the most recent compliant stack test.~~

**The system that continuously monitors proper operation of the thermal incinerators shall be equipped with system alarms, which shall immediately notify plant personnel that a malfunction of the emission control equipment has occurred. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.**

\* \* \* \* \*

### D.3.10 Parametric Monitoring [40 CFR 64]

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The following requirements shall apply only if the VOC reduction credit for the thermal oxidizer is used to show compliance with Conditions D.3.1 and/or D.3.2:

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

~~(b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in the most recent compliant stack test.~~

**The system that continuously monitors proper operation of the thermal oxidizer shall be equipped with system alarms, which shall immediately notify plant personnel that a malfunction of the emission control equipment has occurred. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.**

\* \* \* \* \*

**D.4.10 Parametric Monitoring [40 CFR 64]**

The following requirements shall apply only if the VOC reduction credit for the catalytic oxidizers is used to show compliance with Conditions D.4.1 and/or D.4.2:

- (a) ~~The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with limits in Conditions D.4.1 and/or D.4.2, as approved by IDEM.~~
- (b) ~~The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in the most recent compliant stack test.~~

**The system that continuously monitors proper operation of the catalytic oxidizers shall be equipped with system alarms, which shall immediately notify plant personnel that a malfunction of the emission control equipment has occurred. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.**

*Note: Changes to the record keeping requirements in Conditions D.2.12, D.3.12, and D.4.12 due to this change are shown in the permit changes shown in IDEM Response #9.*

**Comment #7**

**Condition D.3.2(d) - Automobile and Light Duty Truck Coating Operations**

GM believes that the reference to D.4.2(a) in Section D.3.2 (d) is a typo and should refer to D.3.2(a) as corrected below:

*Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitation in ~~D.4.2(a)~~ D.3.2 (a), the overall efficiency of the Primer Surfacer System (010) thermal oxidizer shall be no less than the equivalent overall efficiency calculated by the following equation:*

**IDEM Response #7**

IDEM, OAQ agrees. The permit has been revised as follows:

**D.3.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [326 IAC 8-2-1]**

- (a) \* \* \*
- (b) \* \* \*
- (c) \* \* \*

- (d) Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitation in ~~D.4.2(a)~~ **D.3.2(a)**, the overall efficiency of the Primer Surfacer System (010) thermal oxidizer shall be no less than the equivalent overall efficiency calculated by the following equation:

\* \* \*

## Comment #8

### Conditions D.3.11 and D.4.11 - Monitoring

- (a) The waterwash systems for the Primer Surfacer System and the Topcoat System are not subject to 40 CFR Part 64 (CAM) as specified in Conditions D.3.11 and D.4.11 of the Draft Title V Renewal. The Primer Surfacer System and Topcoat System are not subject to an emission limitation or standard for the applicable regulated air pollutant (Particulate) and the unit does not use a control device to achieve compliance with any such emission limitation or standard. It is important to note that the waterwash is a necessary, inherent part of the processes, otherwise paint overspray would build up in the bottom of the booth and the process could not operate. The waterwash system is not necessarily an abatement or control device, but rather a component of the spray booth necessary to maintain quality. While a waterwash system is effective at removing particulate emissions from the booth exhaust, it is not the primary purpose of the system. A waterwash system is an integral and critical part of the painting process. This is because it is relied on to provide booth balance and removal of the paint overspray from the process, thereby ensuring the overall quality of the product. Since the waterwash system is inherent to the Primer Surfacer coating operation, it is not a control device as defined in 40 CFR Part 64.1.
- (b) GM believes that the addition of monthly inspections of rooftops and nearby ground is excessive and opens the facility up to recordkeeping Title V Deviations. The facility has been operating for over 15 years and evidence of overspray emissions has never been observed. It is extremely frustrating for a facility that has demonstrated solid compliance to have an increase in monitoring in light of its excellent record. As required in Conditions D.3.11(a) and D.4.11(a), the Primer Surfacer System (010) waterwash system and Topcoat System (008) waterwash system are monitored through the use of alarms on the water pumps the feed the system which provides reasonable assurance of compliance.

~~(b) Monthly inspections shall be performed of the coating emissions from stack 03 and the presence of overspray on the rooftops and nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emission is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.~~

## IDEM Response #8

- (a) Both the Primer Surfacer System and the Topcoat System are subject to the provisions of 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies) because they do not meet any of the exemptions under 326 IAC 6-3-1(b). Pursuant to 326 IAC 6-3-2(d), surface coating shall be controlled by a dry particulate filter, waterwash, or an equivalent control device and the source shall operate the control

device in accordance with manufacturer's specifications.

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring is applicable to pollutant-specific emission units at a major source that is required to obtain a Part 70 or 71 permit that meets the following criteria:

- (1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant;
- (2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and
- (3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

Pursuant to the Definitions section of the rule, 40 CFR 64.1, emission limitation or standard includes expression as a work practice, process or control device parameter, or other form of specific design, equipment, operational, or operation and maintenance requirement.

Both the Primer Surfacer System and the Topcoat System meet all three criteria:

- (1) The units are subject to an emission limitation or standard: 326 IAC 6-3-2(d) for particulate. In addition, the use of the waterwash systems would have been required to keep these units from being subject to 326 IAC 2-2 (Prevention of Significant Deterioration Best Available Control Technology) review in the original PSD Construction Permit No.: PSD (02) 1575, issued on November 30, 1984.
- (2) The units must use a control device to comply with 326 IAC 6-3-2(d): dry particulate filters, waterwash system, or equivalent.
- (3) The pre-control device potential emissions for both systems is greater than the major source threshold for particulate (greater than 100 tons per year).

Pursuant to 40 CFR 64.1, the definition of "inherent process equipment" is equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations.

The waterwash system is not used for material recovery. While it may assist in product quality, the function of a waterwash system is particulate control. Even if the Primer Surfacer System and Topcoat System are devised such that they shut down if the waterwash system is not operating properly (which is not the case for General Motors Corporation - Truck Group), such interlocks can be overridden. IDEM, OAQ does not agree that the waterwash systems are inherent process equipment to surface coating operations; therefore, the requirements of CAM are applicable to the Primer Surfacer System and Topcoat System. No change to the permit is being made as a result of this comment.

- (b) IDEM, OAQ believes that overspray inspections are necessary to ensure that the control devices are working properly. Based on internal discussions and the compliance history of General Motors Corporation - Truck Group, IDEM, OAQ agrees to allow for semi-annual overspray inspections instead of monthly inspections. The permit has been revised as follows as a result of this comment:

D.3.11 Monitoring [40 CFR 64]

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(a) \* \* \*

- (b) ~~Monthly~~ **Semi-annual** inspections shall be performed of the coating emissions from stack 03 and the presence of overspray on the rooftops and nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emission is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

\* \* \* \* \*

D.4.11 Monitoring [40 CFR 64]

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(a) \* \* \*

- (b) ~~Monthly~~ **Semi-annual** inspections shall be performed of the coating emissions from stack 03 and the presence of overspray on the rooftops and nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emission is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

*Note: Changes to the record keeping requirements in Conditions D.3.12, and D.4.12 due to this change are shown in the permit changes shown in IDEM Response #9.*

**Comment #9**

**Conditions D.2.12, D.3.12, and D.4.12 - Record Keeping Requirements**

- (a) GM requests that the following changes be made to (a)(2)(A) of Conditions D.2.12, D.3.12, and D.4.12. The requirement was originally supposed to be giving a list of types of records that are acceptable for showing the coating usage and VOC content. Unfortunately, by inserting the word "shall" the term now creates that misimpression that all of these are required. Please change "shall" to "may" and also "and" to "or".

(1) *The VOC content of each coating material and solvent used, less water.*

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

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

(B) *Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.*

(3) *The monthly cleanup solvent usage.*

(4) *The total VOC usage for each month.*

- (b) What basis does IDEM have to require that the time of the application or use of non-compliant coatings be recorded? Fundamentally, IDEM must provide that any monitoring

be necessary to reasonably assure compliance with an emission limit. Time is simply irrelevant. Moreover, it will not be intuitive to the operator to record this information since they know that it is not related to the emission limit. Please delete this from subparagraphs (5), (6) and (7).

(5) ~~The dates and times each coating is applied.~~

(6) ~~The dates and times non-compliant coatings are used.~~

(7) ~~During periods when non-compliant coatings are used:~~

~~(B) Daily records of the duct pressure or fan amperage. The Permittee shall include in its daily record when duct pressure or fan amperage is not taken and the reason for the lack of duct pressure or fan amperage notation (e.g. the process did not operate that day).~~

### IDEM Response #9

- (a) IDEM, OAQ agrees to clarify that not all of the listed documents in (a)(2)(C) of Conditions D.2.12, D.3.12, and D.4.12 are necessary.
- (b) IDEM, OAQ agrees that the time each coating is applied is not necessary. The record keeping requirements have been revised for clarity.

In addition, changes to Conditions D.2.12, D.3.12, and D.4.12 as explained in IDEM Responses #4, #6, and #8 are shown here as well.

The permit has been revised as follows:

#### D.2.12 Record Keeping Requirements

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- (a) To document compliance with Conditions D.2.1, D.2.2, D.2.3, D.2.6, D.2.7, D.2.10, and D.2.11, the Permittee shall maintain records in accordance with (1) through ~~(7)~~**(8)** below. Records maintained for (1) through ~~(7)~~**(8)** shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.2.1, D.2.2, and D.2.3.
  - (1) The VOC content of each coating material and solvent used, less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include ~~purchase orders, invoices, and material safety data sheets (MSDS)~~ **documents** necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) A log of the dates of use of each coating.**
  - (4) A log of when the thermal incinerators are used to demonstrate compliance with an emission limitation.**
  - (5) The calculated daily volume weighted average in pounds of VOC per gallon, less water, if applicable.**

- ~~(3)~~(6) The monthly cleanup solvent usage.
- ~~(4)~~(7) The total VOC usage for each month.
- ~~(5)~~ — The dates and times each coating is applied.
- ~~(6)~~ — The dates and times non-compliant coatings are used.
- ~~(7)~~(8) During periods when non-compliant coatings are used **the thermal incinerators are used to demonstrate compliance with an emission limitation:**
  - (A) The continuous temperature records (on a 3-hour average basis) for the thermal ~~and/or catalytic~~ oxidizers and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
  - (B) ~~Daily records of the duct pressure or fan amperage. The Permittee shall include in its daily record when duct pressure or fan amperage is not taken and the reason for the lack of duct pressure or fan amperage notation (e.g. the process did not operate that day).~~ **Records of the dates of any thermal incinerator system alarms and corrective actions taken.**
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

\* \* \* \* \*

#### D.3.12 Record Keeping Requirements

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- (a) To document compliance with Conditions D.3.1, D.3.2, D.3.5, D.3.6, D.3.9, and D.3.10, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.3.1 and D.3.2.
  - (1) The VOC content of each coating material and solvent used, less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include ~~purchase orders, invoices, and material safety data sheets (MSDS)~~ **documents** necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) A log of the dates of use of each coating.**
  - (4) A log of when the regenerative thermal oxidizer is used to demonstrate compliance with an emission limitation.**
  - ~~(3)~~(5) The monthly cleanup solvent usage.
  - ~~(4)~~(6) The total VOC usage for each month.

- ~~(5)~~ The dates and times each coating is applied.
- ~~(6)~~ The dates and times non-compliant coatings are used.
- (7) During periods when ~~non-compliant coatings~~ **the regenerative thermal oxidizer is used to demonstrate compliance with an emission limitation:**
- (A) The continuous temperature records (on a 3-hour average basis) for the thermal oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
  - (B) ~~Daily records of the duct pressure or fan amperage. The Permittee shall include in its daily record when duct pressure or fan amperage is not taken and the reason for the lack of duct pressure or fan amperage notation (e.g. the process did not operate that day).~~ **Records of the dates of any thermal oxidizer system alarms and corrective actions taken.**
- (b) To document compliance with Conditions D.3.3 and D.3.11, the Permittee shall maintain records of the dates of any waterwash alarms and corrective actions taken and shall maintain a log of ~~monthly~~ **semi-annual** inspections.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

\* \* \* \* \*

#### D.4.12 Record Keeping Requirements

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- (a) To document compliance with Conditions D.4.1, D.4.2, D.4.5, D.4.6, D.4.9, and D.4.10, the Permittee shall maintain records in accordance with (1) through (7) below. Records maintained for (1) through (7) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.4.1 and D.4.2.
- (1) The VOC content of each coating material and solvent used, less water.
  - (2) The amount of coating material and solvent used on a monthly basis.
    - (A) Records shall include ~~purchase orders, invoices, and material safety data sheets (MSDS)~~ **documents** necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) A log of the dates of use of each coating.**
  - (4) A log of when the catalytic oxidizers are used to demonstrate compliance with an emission limitation.**
  - ~~(3)~~**(5)** The monthly cleanup solvent usage.
  - ~~(4)~~**(6)** The total VOC usage for each month.
  - ~~(5)~~ The dates and times each coating is applied.

- (6) ~~The dates and times non-compliant coatings are used.~~
- (7) During periods when ~~non-compliant coatings~~ **the catalytic oxidizers** are used to **demonstrate compliance with an emission limitation:**
- (A) The continuous temperature records (on a 3-hour average basis) for the catalytic oxidizers and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
- (B) ~~Daily records of the duct pressure or fan amperage. The Permittee shall include in its daily record when duct pressure or fan amperage is not taken and the reason for the lack of duct pressure or fan amperage notation (e.g. the process did not operate that day).~~ **Records of the dates of any catalytic oxidizer system alarms and corrective actions taken.**
- (b) To document compliance with Conditions D.4.3 and D.4.11, the Permittee shall maintain records of the dates of any waterwash alarms and corrective actions taken and shall maintain a log of ~~monthly~~ **semi-annual** inspections.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **Additional Changes:**

In addition to the above changes, the following changes are being made to this permit:

- (a) Several of IDEM's Branches and sections have been renamed. Therefore, IDEM has updated the addresses listed in the permit. References to Permit Administration and Development Section and the Permits Branch have been changed to Permit Administration and Support Section. References to Asbestos Section, Compliance Data Section, Air Compliance Section, and Compliance Branch have been changed to Compliance and Enforcement Branch.

**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**

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

- (b) IDEM has decided to reference 326 IAC 2 in Condition B.21-Source Modification Requirements, rather than the specific construction rule.
- (c) IDEM has decided not to list the submission date of the ERP in Condition C.14-Emergency Reduction Plans because the ERP can be updated without permit change.
- (d) Conditions D.3.2 and D.4.2 have been revised to correct the citations of 326 IAC 8-2-1 to 326 IAC 8-1-2.

- (e) Conditions D.3.2(c) and D.4.2(c) cited the September 2008 protocol for the procedures for determining compliance with the equivalent emission limitation. The conditions are being revised to cite the 1988 protocol as specified in 326 IAC 8-1-2(a)(5)(D) and to include a statement allowing for other methods as approved by the commissioner. The 2008 protocol would be an approved alternative method for complying with the equivalent emission limitation.
- (f) The following provision of 40 CFR 60, Subpart Db is also applicable to this source: 40 CFR 60.48b(j).
- (g) The following provision of 40 CFR 63, Subpart IIII is also applicable to this source: 40 CFR 63.3091(f).

The permit has been revised as follows:

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

---

- ~~(a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2-7-10.5.~~
- ~~(b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2.~~

\* \* \* \* \*

**C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

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

- (a) The Permittee prepared and ~~shall~~ **maintain the most recently** submitted written emergency reduction plans (ERPs) consistent with safe operating procedures ~~on June 2, 2006.~~
- (b) \* \* \*

\* \* \* \* \*

**D.3.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] ~~[326 IAC 8-2-1]~~ [326 IAC 8-1-2]**

---

- (a) \* \* \*
- (b) Pursuant to ~~326 IAC 8-2-1(a)~~ **326 IAC 8-1-2(a)**, the emission limitation specified in D.3.2(a), shall be achieved through one or any combination of thermal incineration, higher solids (low solvent) coatings, water borne coatings, and/or an equivalent emission limitation.
- (c) Pursuant to ~~326 IAC 8-2-1(a)(5)~~ **326 IAC 8-1-2(a)(5)**, VOC emissions as allowed in D.3.2(a)(2) from the Primer Surfacer System (010) shall be limited to no greater than an equivalent emission limitation based on an actual measured transfer efficiency higher than 30%. The equivalent emission limitation is 1.83 kilograms of VOC per liter solids deposited (15.1 pounds per gallon solids deposited). Compliance with the above equivalent emission limitation shall be determined by use of procedures found in ~~"Protocol of Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light Duty Truck Primer Surfacer and Topcoat Operations", EPA 453/R-08-002, September 2008.~~ **"Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat**

**Operations", EPA-450/3-88-018, December 1988, or by an alternative method approved by the Commissioner.**

(d) \* \* \*

\* \* \* \* \*

**D.4.2 Automobile and Light Duty Truck Coating Operations [326 IAC 8-2-2] [~~326 IAC 8-2-1~~][**326 IAC 8-1-2**]**

(a) \* \* \*

(b) Pursuant to ~~326 IAC 8-2-1(a)~~ **326 IAC 8-1-2(a)**, the emission limitation specified in D.4.2(a), shall be achieved through one or any combination of catalytic incineration, higher solids (low solvent) coatings, water borne coatings, and/or an equivalent emission limitation.

(c) Pursuant to ~~326 IAC 8-2-1(a)(5)~~ **326 IAC 8-1-2(a)(5)**, VOC emissions as allowed in D.4.2(a) from the Topcoat System (008) shall be limited to no greater than an equivalent emission limitation based on an actual measured transfer efficiency higher than 30%. The equivalent emission limitation is 1.83 kilograms of VOC per liter solids deposited (15.1 pounds per gallon solids deposited). Compliance with the above equivalent emission limitation shall be determined by use of procedures found in "~~Protocol of Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations~~", EPA-453/R-08-002, September 2008. **"Protocol for Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Topcoat Operations", EPA-450/3-88-018, December 1988, or by an alternative method approved by the Commissioner.**

(d) \* \* \*

\* \* \* \* \*

**E.1.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Db]**

Pursuant to 40 CFR Part 60, Subpart Db, the Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Db (included as Attachment A of this permit):

(1) \* \* \*

\* \* \*

(9) 40 CFR 60.48b(a), (b)(1) or (b)(2), (c), (d), (e)(2)(i) or (e)(2)(ii), (e)(3), (f), **(j)**;

\* \* \*

\* \* \* \* \*

**E.3.2 Surface Coating of Automobiles and Light-Duty Trucks NESHAP [40 CFR Part 63, Subpart IIII]**

The Permittee which engages in surface coating of automobiles and light-duty trucks shall comply with the following provisions of 40 CFR Part 63, Subpart IIII (included as Attachment C of this permit), with a compliance date of April 26, 2007:

(1) \* \* \*

(2) \* \* \*

(3) \* \* \*

(4) \* \* \*

(5) 40 CFR 63.3091(a)-~~(e)~~**(f)**;

\* \* \*

**Indiana Department of Environmental Management**  
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

**Source Background and Description**

<b>Source Name:</b>	<b>General Motors Corporation - Truck Group</b>
<b>Source Location:</b>	<b>12200 LaFayette Center Road, Roanoke, IN 46783</b>
<b>County:</b>	<b>Allen</b>
<b>SIC Code:</b>	<b>3711</b>
<b>Permit Renewal No.:</b>	<b>T 003-23379-00036</b>
<b>Permit Reviewer:</b>	<b>Laura Spriggs</b>

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from General Motors Corporation - Truck Group relating to the operation of a stationary automobile and light duty truck assembly plant.

**History**

On July 18, 2006, General Motors Corporation - Truck Group submitted an application to the OAQ requesting to renew its operating permit. General Motors Corporation - Truck Group was issued a Part 70 Operating Permit on June 24, 2002.

**Permitted Emission Units and Pollution Control Equipment**

- (a) Facility-wide natural gas usage, including combustion units described as follows:
- (1) One (1) natural gas/No. 2 or No. 6 fuel oil/landfill gas fired boiler, identified as 003, constructed in 1968, relocated to the source in August 1985, burners approved for replacement through Administrative Amendment No. 003-26644-00036, issued on July 31, 2008, with a maximum capacity of 240 MMBtu/hr, using low excess air as control, and exhausting to stack 01;
  - (2) One (1) natural gas/No.2 fuel oil fired boiler, identified as 004, constructed in April 1992, with a maximum capacity of 228 MMBtu/hr for natural gas, and 220 MMBtu/hr for No. 2 fuel oil, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;
  - (3) One (1) natural gas/No. 2 fuel oil fired boiler, identified as 005, constructed in March 1993, with a maximum capacity of 228 MMBtu/hr for natural gas, and 220 MMBtu/hr for No. 2 fuel oil, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01;
  - (4) Fifty-six (56) Space heaters and process heaters using natural gas, identified as 007, with a total heat input capacity of 50.6 MMBtu/hr, using no control, and exhausting to various stacks denoted as stack 13; and
  - (5) Twenty (20) natural gas fired air supply house burners, constructed in 2001, identified as MOD 1 through MOD 10 (each mod air supply house contains two burners), with emissions exhausted through their respective booth stacks denoted as SO4, and each burner rated at 12.6 MMBtu per hour.
- (b) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC

control, and exhausting to stack 02;

- (c) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, using a natural gas fired regenerative thermal oxidizer with a maximum capacity of 16 MMBtu/hr as VOC control, and waterwash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the fixed bell cup wash purges into the booth and the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above;
- (d) One (1) Topcoat System, identified as 008, constructed in August 1985, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, with the maximum capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using waterwash as PM control, and exhausting to stack 04;
- (e) Miscellaneous sealers/adhesives/additives/solvents, identified as 009, constructed in August 1985, using no controls, and exhausting to stacks 07 and 08;
- (f) One (1) Final Repair Operation, identified as 012, constructed in August 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls;
- (g) One (1) Maintenance Paint Operation, identified as 013, constructed in August 1985, using no control, and exhausting to stack 10; and
- (h) One (1) Gasoline Fill Operation, identified as 014, constructed in August 1985, including tanks 8 and 9, each with a capacity of 20,000 gallons, using either a natural gas afterburner with a maximum capacity of 0.15 MMBtu/hr, or the vehicle being fueled is equipped with an Onboard Refueling Vapor Recovery (ORVR) System as VOC control, and exhausting to stack 12.

### Insignificant Activities

- (a) 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 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations [326 IAC 6-3-2].
- (b) Storage tanks, identified as 1 (solvent/thinner), 2 (solvent/thinner), 7 (automatic transmission fluid), 8 (reclaimed solvent), 12 (fuel oil), 13 (fuel oil), 14 (fuel oil), 15 (fuel oil), and two (2) 18,900 gallon waste purge solvent tanks, all constructed after July 23, 1984 [40 CFR 63, Subpart III].
- (c) Space heaters, process heaters, or boilers using natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
- (d) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (e) 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.
  - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

- (f) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment [326 IAC 6-3-2].
- (g) Closed loop heating and cooling systems.
- (h) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (i) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.
- (j) Noncontact cooling tower systems with natural draft cooling towers not regulated under a NESHAP.
- (k) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (l) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone [326 IAC 6-3-2].
- (m) Paved and unpaved roads and parking lots with public access.
- (n) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (o) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (p) On-site fire and emergency response training approved by the department.
- (q) Diesel generators not exceeding 1600 horsepower.
- (r) Other emergency equipment as follows: Stationary fire pumps.
- (s) A laboratory as defined in 326 IAC 2-7(21)(D).
- (t) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (u) Other activities or categories with emissions less than insignificant thresholds:
  - (1) Fluorocarbon R-134A Storage Tanks (Main Plant);
  - (2) Sulfuric Acid Storage Tank (Wastewater Treatment Plant);
  - (3) Grinding Operations (Light Duty Truck Body Shop) [326 IAC 6-3-2];
  - (4) Pre-phosphate Washers (Light Duty Truck Assembly Line);
  - (5) Multi-stage Phosphate Systems (Light Duty Truck Assembly Line);
  - (6) Feather Dusters (Light Duty Truck Assembly Line);
  - (7) Vehicle washers prior to shipping (Light Duty Truck Assembly Line);
  - (8) Spot sanding and painting (Light Duty Truck Assembly Line);

- (9) Bulk Storage Material Transferring Equipment; i.e. pumps, valves, pipes, flanges, etc. (Light Duty Truck Assembly Line);
- (10) Vehicle Fluid Fill Operations; i.e. engine oil, windshield, transmission, engine coolant, power steering fluid, brake fluid, and air conditioning refrigerant (Light Duty Truck Assembly Line);
- (11) Engine Subassembly Lines (Light Duty Truck Assembly Line);
- (12) Radiator Subassembly Lines (Light Duty Truck Assembly Line);
- (13) Trim Assembly Lines (Light Duty Truck Assembly Line);
- (14) Maintenance Shops (Light Duty Truck Assembly Line);
- (15) Gasoline/Diesel Tank Assembly Areas (Light Duty Truck Assembly Line);
- (16) Mechanical Repair Stalls (Light Duty Truck Assembly Line);
- (17) Final Vehicle Inspection (Care Building);
- (18) Wastewater Treatment Plant;
- (19) Storage Tanks;
- (20) Body Washers;
- (21) Mig Welding [326 IAC 6-3-2]; and
- (22) Diesel Pumps.

### Existing Approvals

Since the issuance of Part 70 Operating Permit No. T 003-5959-00036 on June 24, 2002, the source has constructed or has been operating under the following approvals as well:

- (a) Significant Permit Modification No. 003-17476-00036, issued on May 24, 2004;
- (b) Significant Permit Modification No. 003-19589-00036, issued on August 8, 2005;
- (c) Significant Permit Modification No. 003-24514-00036, issued on March 28, 2008; and
- (d) Administrative Amendment No. 003-26644-00036, issued on July 31, 2008.

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.

The following terms and conditions from previous approvals have been revised in this Part 70 Operating Permit Renewal:

- (a) 40 CFR 60, Subpart Db Requirements  
The requirements of 40 CFR 60, Subpart Db have been moved from Section D.1 within the permit to being referenced in Section E.1. The entire rule language has been included as Attachment A to the permit.

- (b) **Primer Surfacer System VOC Content Limit**  
 The original Part 70 Operating Permit included a VOC content limit for the Primer Surfacer System (010) pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations). It has been determined that the appropriate VOC content limit for the Primer Surfacer System should be established pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations). Further discussion is provided in the State Rule Applicability section.
- (c) **40 CFR 60, Subpart MM Requirements**  
 The requirements of 40 CFR 60, Subpart MM have been moved from the D sections within the permit to being referenced in Section E.2. The entire rule language has been included as Attachment B to the permit.
- (e) **40 CFR 60, Subpart Kb**  
 It has been determined that 40 CFR 60, Subpart Kb does not apply to tanks 1, 7, 12, 13, 14, 15, or the two waste purge solvent tanks. Further discussion is provided in the Federal Rule Applicability section.

**Enforcement Issue**

There are no enforcement actions pending.

**Emission Calculations**

See Appendix A of this document for detailed emission calculations.

**County Attainment Status**

The source is located in Allen County

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Attainment effective February 12, 2007, for the Fort Wayne area, including Allen County, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.
<sup>1</sup> 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 <sub>2.5</sub> .	

- (a) **Ozone Standards**
  - (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
  - (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, LaPorte, and St. Joseph as attainment for the 8-hour ozone standard.

- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
  - (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) 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<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) **PM<sub>2.5</sub>**  
 Allen County has been classified as attainment for PM<sub>2.5</sub>. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM<sub>2.5</sub> emissions, and the effective date of these rules was July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM<sub>10</sub> emissions as a surrogate for PM<sub>2.5</sub> emissions until 326 IAC 2-2 is revised.
- (c) **Other Criteria Pollutants**  
 Allen County has been classified as attainment or unclassifiable in Indiana for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) **Fugitive Emissions**  
 This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, however, there is an applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

**Unrestricted Potential Emissions**

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	1,576
PM <sub>10</sub>	1,566
SO <sub>2</sub>	1,499
VOC	6,265
CO	409
NO <sub>x</sub>	730

HAPs	tons/year
Single HAP	Greater than 10
<b>Total</b>	<b>Greater than 25</b>

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, and CO are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) 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 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.

- (c) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

### Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2006 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	21.0
PM <sub>10</sub>	21.0
SO <sub>2</sub>	0.57
VOC	1,194
CO	74
NO <sub>x</sub>	110
HAPs	Not Reported

### Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

### Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.



- (a) Boiler 003 is capable of burning natural gas, No. 2 fuel oil, No. 6 fuel oil, and landfill gas. The potential to emit values presented are based on the worst case scenario taking into account all limits.
- (b) Pursuant to 326 IAC 6-2-4, the particulate emissions from Boiler 003 shall be limited to 0.26 lb/MMBtu. Pursuant to Permit PSD (02) 1575, issued on November 30, 1984 and 326 IAC 2-2 (PSD BACT), PM emissions from Boiler 003 shall not exceed 0.015 lb/MMBtu when combusting natural gas and shall not exceed 0.056 lb/MMBtu when combusting fuel oil (PM emissions shall not exceed 16 tons per year from the combustion of natural gas and shall not exceed 59 tons per year from the combustion of fuel oil). Emission calculations based on AP-42 emission factors indicate that Boiler 003 is capable of complying with these limits. The value shown in the table is based on the worst case fuel (No. 6 fuel oil) using AP-42 emission factors.
- (c) The value shown in the table is based on the worst case fuel for the given pollutant (No. 6 fuel oil) using AP-42 emission factors.
- (d) Pursuant to 326 IAC 7-1.1-2, SO<sub>2</sub> emissions from Boiler 003 shall not exceed 0.5 lb/MMBtu when combusting No. 2 fuel oil and shall not exceed 1.6 lb/MMBtu when combusting No. 6 fuel oil. Emission calculations based on AP-42 emission factors indicate that Boiler 003 is capable of complying with these limits. The value shown in the table is based on the worst case fuel (No. 6 fuel oil) using AP-42 emission factors.
- (e) The value shown in the table is based on the worst case fuel for the given pollutant (natural gas) using AP-42 emission factors.
- (f) Pursuant to Permit PSD (02) 1575, issued on November 30, 1984 and 326 IAC 2-2 (PSD BACT), NO<sub>x</sub> emissions from Boiler 003 shall not exceed 0.2 lb/MMBtu when combusting natural gas and shall not exceed 0.3 lb/MMBtu when combusting fuel oil. Emission calculations based on AP-42 emission factors indicate that Boiler 003 is capable of complying with the limits when combusting natural gas and No. 2 fuel oil. Emission calculations based on AP-42 emission factors for combustion of No. 6 fuel oil are slightly higher than those based on the 0.3 lb/MMBtu. The value shown in the table is based on the worst case fuel (No. 6 fuel oil) using the emission limitation of 0.3 lb/MMBtu.
- (g) Boiler 004 is capable of burning natural gas and No. 2 fuel oil. Pursuant to CP (003) 2000, issued on September 9, 1991, No. 2 fuel oil usage for Boiler 004 shall not exceed 1.1 million gallons per 12 consecutive month period and the fuel sulfur content shall not exceed 0.49%. Natural gas usage was not limited for Boiler 004. The worst case emissions for Boiler 004 for each pollutant were compared for combusting only natural gas and for combusting No. 2 fuel oil up to the limited usage rate plus combusting natural gas for the remainder of the available boiler capacity.
- (h) Pursuant to 326 IAC 6-2-4, particulate emissions from Boiler 004 shall be limited to 0.22 lb/MMBtu. Emission calculations based on AP-42 emission factors indicate that Boiler 004 is capable of complying with this limit. The value shown in the table is based on the worst case scenario (No. 2 fuel oil up to the limited usage rate plus natural gas for the remainder of the boiler capacity) using the limited usage rate and AP-42 emission factors.
- (i) Pursuant to 40 CFR 60, Subpart Db and 326 IAC 7-1.1-2, SO<sub>2</sub> emissions from Boiler 004 shall not exceed 0.5 lb/MMBtu when combusting No. 2 fuel oil. Emission calculations based on AP-42 emission factors indicate that Boiler 004 is capable of complying with these limits. In addition, as discussed in (g) above, the No. 2 fuel oil usage and fuel sulfur content was limited to keep the SO<sub>2</sub> emissions from Boiler 004 less than the PSD significant threshold for major modifications. The value shown in the table is based on the worst case scenario (No. 2 fuel oil up to the limited usage rate plus natural gas for the remainder of the boiler capacity) using the limited usage rate and AP-42 emission factors.
- (j) Pursuant to 40 CFR 60, Subpart Db, NO<sub>x</sub> emissions from Boiler 004 shall not exceed 0.2 lb/MMBtu when combusting natural gas or No. 2 fuel oil. Pursuant to CP (003) 2000, issued on September 9, 1991, PSD BACT for NO<sub>x</sub> for Boiler 004 was determined to be Low NO<sub>x</sub> Burners and Flue Gas Regeneration and NO<sub>x</sub> emissions shall not exceed 0.098 lb/MMBtu when combusting natural gas and shall not exceed 0.13 lb/MMBtu when combusting No. 2 fuel oil. Emission calculations based on AP-42 emission factors indicate that Boiler 004 is capable of complying with these limits. The value shown in the table is based on the worst case scenario (natural gas combustion only) using AP-42 emission factors.
- (k) Boiler 005 is capable of burning natural gas and No. 2 fuel oil. Pursuant to CP No. 003-2524, issued on

October 13, 1992, the No. 2 fuel oil usage for Boiler 005 shall not exceed 3.2 million gallons per 12 consecutive month period with a fuel sulfur content of 0.49%. Compliance with these limits, in combination with the netting analysis conducted in the construction permit, shall limit the net emissions increases of both SO<sub>2</sub> and NO<sub>x</sub> to less than 40 tons per year and render 326 IAC 2-2 not applicable. The worst case emissions for Boiler 005 for each pollutant were compared for combusting only natural gas and for combusting No. 2 fuel oil up to the limited usage rate plus combusting natural gas for the remainder of the available boiler capacity.

- (l) Pursuant to 326 IAC 6-2-4, particulate emissions from Boiler 005 shall be limited to 0.20 lb/MMBtu. Emission calculations based on AP-42 emission factors indicate that Boiler 005 is capable of complying with this limit. The value shown in the table is as discussed in (k) above.
- (m) Pursuant to 40 CFR 60, Subpart Db and 326 IAC 7-1.1-2, emissions from Boiler 005 shall not exceed 0.5 lb/MMBtu when combusting No. 2 fuel oil. Emission calculations based on AP-42 emission factors indicate that Boiler 005 is capable of complying with these limits. In addition, as discussed in (k) above, the No. 2 fuel oil usage and fuel sulfur content was limited to keep the SO<sub>2</sub> net emissions increase from Boiler 005 to less than the PSD significant threshold for major modifications. The value shown in the table is as discussed in (k) above.
- (n) Pursuant to 40 CFR 60, Subpart Db, NO<sub>x</sub> emissions from Boiler 005 shall not exceed 0.2 lb/MMBtu when combusting natural gas or No. 2 fuel oil. In addition, CP 003-2524 established NO<sub>x</sub> emission limits of 0.098 lb/MMBtu when combusting natural gas and 0.13 lb/MMBtu when combusting No. 2 fuel oil. Emission calculations based on AP-42 emission factors indicate that Boiler 005 is capable of complying with these limits. The value shown in the table is as discussed in (k) above.
- (o) Pursuant to SSM No. 003-12830-00036, issued on March 5, 2001, and to render 326 IAC 2-2 not applicable, NO<sub>x</sub> emissions from the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) shall not exceed 100 lb/MMCF of natural gas and the natural gas throughput to the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) shall not exceed six hundred and ten (610) MMCF per 12 consecutive month period. Emission calculations based on AP-42 emission factors indicate that MOD 1 – MOD 10 are capable of complying the emission limitation. The values shown for each pollutant are based on the natural gas limited usage rate and AP-42 emission factors.
- (p) Pursuant to 326 IAC 6-3-2, particulate from the Primer Surfacer System (010), the Topcoat System (008), and the Final Repair Operation (012) shall be controlled by a dry particulate filter, waterwash, or equivalent control device. Both the Primer Surfacer System and the Topcoat system use waterwash for particulate control and the Final Repair Operation uses dry particulate filters for particulate control. The values shown for PM and PM<sub>10</sub> are based on controlled emissions, assuming 95% control.
- (q) Pursuant to Permit PSD (02) 1575, issued on November 30, 1984, the source has an entire source VOC limit of 3,204 tons of VOC per 12 consecutive month period. This limit is based on total VOC usage from all surface coating and cleaning operations.

- (a) This existing stationary source is major for PSD because the emissions of at least one attainment pollutant are greater than two hundred fifty (>250) tons per year, and is not one of the twenty-eight (28) listed source categories.
- (b) Fugitive Emissions  
This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, however, there is an applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions from the NSPS affected units are counted toward the determination of PSD and Emission Offset applicability.

## Federal Rule Applicability

### Compliance Assurance Monitoring (CAM)

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to existing emission units that involve a pollutant-specific emission unit and meet the following criteria:
- (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
  - (2) is subject to an emission limitation or standard for that pollutant; and
  - (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

Emission Unit / Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
ELPO Dipping System (006) – VOC	Thermal Incinerator	Y	356.4	153.3	100	N <sup>(c)</sup>	Y
Primer Surfacer System (010) – VOC	RTO	Y	750.5	179.1	100	Y	Y
Primer Surfacer System (010) – PM	Waterwash	Y <sup>(1)</sup>	292.5	14.63	100	Y	N
Topcoat System (008) – VOC	Catalytic Oxidizer	Y	4198	3627	100	N <sup>(c)</sup>	Y
Topcoat System (008) – PM	Waterwash	Y <sup>(1)</sup>	1180	59.01	100	Y	N
Final Repair Operation (012) – PM	Dry Particulate Filter	Y <sup>(1)</sup>	7.45	0.37	100	N	N
Gasoline Fill Operation (014) – VOC	AB or ORVR <sup>(2)</sup>	N	9.65	0.965	100	N	N

(1) The operation of the control device is necessary in order to comply with 326 IAC 6-3-2.

(2) AB = Afterburner, ORVR = Onboard Refueling Vapor Recovery

Based on this evaluation:

- (a) The requirements of 40 CFR Part 64, CAM, are applicable to the Primer Surfacer System (010) and the Topcoat System (008) for PM. The Compliance Monitoring requirements for the waterwash systems controlling these units shall satisfy CAM.
- (b) The requirements of 40 CFR Part 64, CAM, are applicable to the Primer Surfacer System (010) for VOC. A CAM plan has been submitted and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.
- (c) The requirements of 40 CFR Part 64, CAM are not applicable to the ELPO Dipping System (006) or the Topcoat System (008) for VOC. While these units do have emission

limits and have potential to emit, both before and after control of greater than the major source threshold for VOC, the control devices are not needed for demonstrating compliance. The Permittee has indicated that the control devices are used, but credit is not taken. If the control devices were used to demonstrate compliance with applicable emission limitations, CAM would be the same as for the Primer Surfacer System.

- (d) The requirements of 40 CFR, CAM, are not applicable to the Final Repair Operation (012) because the uncontrolled potential to emit of particulate matter is less than the major source threshold.

### ***New Source Performance Standards (NSPS)***

- (a) The requirements of the New Source Performance Standard for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971, 40 CFR 60.40, Subpart D, are not included in the permit for Boilers 003, 004, or 005. Construction of Boiler 003 commenced prior to August 17, 1971 and Boilers 003, 004, and 005 all have a heat input rate of less than 250 MMBtu/hr.

- (b) New Source Performance Standard for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60.40b, Subpart Db:

- (1) Boiler 003 is not subject to the requirements of NSPS, Subpart Db because it was constructed prior to June 19, 1984.

- (2) Boiler 004 and Boiler 005 are subject to NSPS, Subpart Db (40 CFR 60.40b), which is incorporated by reference as 326 IAC 12 because these units were constructed after the applicability date of June 19, 1984 and have heat input capacities of greater than 100 MMBtu/hr. The specific facilities subject to this rule include the following:

(A) One (1) natural gas/No. 2 fuel oil fired boiler, identified as 004, constructed in April 1992, with a maximum capacity of 228 MMBtu/hr for natural gas, and 220 MMBtu/hr for No. 2 fuel oil, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01; and

(B) One (1) natural gas/No. 2 fuel oil fired boiler, identified as 005, constructed in March 1993, with a maximum capacity of 228 MMBtu/hr for natural gas, and 220 MMBtu/hr for No. 2 fuel oil, using low NO<sub>x</sub> burners and flue gas recirculation as control, and exhausting to stack 01.

Boiler 004 and Boiler 005 are subject to the following portions of Subpart Db:

- (A) 40 CFR 60.40b(a), (f), (g), (j);  
(B) 40 CFR 60.41b;  
(C) 40 CFR 60.42b(k)(2);  
(D) 40 CFR 60.43b(f), (g);  
(E) 40 CFR 60.44b(a)(1), (h), (i);  
(F) 40 CFR 60.45b(a), (j), (k);  
(G) 40 CFR 60.46b(a), (b), (c), (d) or (j), (e);  
(H) 40 CFR 60.47b(f);  
(I) 40 CFR 60.48b(a), (b)(1) or (b)(2), (c), (d), (e)(2)(i) or (e)(2)(ii), (e)(3), (f);  
(J) 40 CFR 60.49b(a), (b), (d), (e), (f), (g), (j), (k), (o), (r)(1), (v), (w).

- (c) The requirements of the New Source Performance Standard for Automobile and Light Duty Truck Surface Coating Operations (40 CFR 60.390, Subpart MM), which is incorporated by reference as 326 IAC 12, apply to the ELPO Dipping System (prime coat operation), the Primer Surfacer System (guide coat operation), and the Topcoat System

(topcoat operation) at this source because these facilities were constructed after the applicability date of October 5, 1979. The specific facilities subject to this rule include the following:

- (1) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;
- (2) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, using a natural gas fired regenerative thermal oxidizer with a maximum capacity of 16 MMBtu/hr as VOC control, and waterwash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the fixed bell cup wash purges into the booth and the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above; and
- (3) One (1) Topcoat System, identified as 008, constructed in August 1985, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, with the maximum capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using waterwash as PM control, and exhausting to stack 04.

These facilities are subject to the following portions of Subpart MM:

- (1) 40 CFR 60.390;
  - (2) 40 CFR 60.391;
  - (3) 40 CFR 60.392(a)(1), (b), (c);
  - (4) 40 CFR 60.393;
  - (5) 40 CFR 60.394;
  - (6) 40 CFR 60.395;
  - (7) 40 CFR 60.396;
  - (8) 40 CFR 60.397.
- (d) New Source Performance Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984, 40 CFR 60.110b, Subpart Kb:
- (1) Pursuant to 40 CFR 60.110b(a), storage tanks with a capacity of less than 19,812 gallons (75 m<sup>3</sup>) are not subject to the requirements of 40 CFR 60, Subpart Kb. This includes the following storage tanks: 3 (windshield wiper fluid), 6 (power steering fluid), 7 (automatic transmission fluid), 16 (antifreeze coolant), 18 (axle lube), and the two (2) 18,900-gallon waste purge solvent tanks.
  - (2) Pursuant to 40 CFR 60.110b(b), storage tanks with a capacity of greater than or equal to 19,812 gallons (75 m<sup>3</sup>) but less than 39,890 gallons (151 m<sup>3</sup>) storing a liquid with a maximum true vapor pressure less than 2.18 psi (15 kPa) are not subject to the requirements of 40 CFR 60, Subpart Kb. This includes the following storage tanks: 8 (reclaimed solvent), 12 (fuel oil), 13 (fuel oil), 14 (fuel oil), and 15 (fuel oil).
  - (3) Pursuant to 40 CFR 60.110b(d)(5), this subpart does not apply to vessels located at bulk gasoline plants. Therefore, Tanks 8 and 9 associated with the Gasoline Filler Operation (014), which meets the definition of a bulk gasoline plant pursuant to 40 CFR 60.111b, are not subject to the requirements of 40 CFR 60, Subpart Kb.

- (e) The requirements of the New Source Performance Standard for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978, 40 CFR 60.110, Subpart K, are not included in the permit for any storage tanks at this source because they were all installed after the applicability date of this rule.
- (f) The requirements of the New Source Performance Standard for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984, 40 CFR 60.110a, Subpart Ka, are not included in the permit for any storage tanks at this source because they were all installed after the applicability date of this rule.
- (g) The requirements of the New Source Performance Standard for Bulk Gasoline Terminals, 40 CFR 60.500, Subpart XX, are not included in the permit for the Gasoline Fill Operation (014) because the Gasoline Fill Operation has a gasoline throughput of less than 75,700 liters per day and therefore does not meet the definition of bulk gasoline terminal, pursuant to 40 CFR 60.501.
- (h) The requirements of the New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60.4200, Subpart IIII, are not included in the permit for the emergency generators, fire pumps or diesel pumps because these units all predate the applicability dates of this rule.
- (i) The requirements of the New Source Performance Standard for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60.4230, Subpart JJJJ, are not included in the permit for the emergency generators, fire pumps or diesel pumps because these units all predate the applicability dates of this rule.

***National Emission Standards for Hazardous Air Pollutants (NESHAP)***

- (a) Boilers 003, 004, and 005 would have been subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. However, on June 8, 2007, the United States Court of appeals for the District of Columbia Circuit (in NRDC v. EPA, no. 04-1386) vacated in its entirety the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. Additionally, since the state rule at 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. Therefore, the requirements of 40 CFR 63, Subpart DDDDD and 326 IAC 20-95 are not included in the permit.
- (b) This source is subject to the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Automobiles and Light-Duty Trucks (40 CFR 63, Subpart IIII), which is incorporated by reference as 326 IAC 20-85. General Motors Corporation - Truck Group is subject to this subpart because it applies topcoat to new automobile or new light-duty truck bodies and is a major source of emissions of hazardous air pollutants. Pursuant to 40 CFR 63.3082(g), this source is an existing affected source.

Pursuant to 40 CFR 63.3082, the affected source that is subject to the requirements of 40 CFR 63, Subpart IIII consists of the collection of all coating operations, as defined in 40 CFR 63.3176; all storage containers and mixing vessels in which coatings, thinners, and cleaning materials are stored or mixed; all manual and automated equipment and containers for conveying coatings, thinners, and cleaning materials; and all storage containers and all manual and automated equipment and containers used for conveying

waste materials generated by a coating operation. The specific facilities include the following:

- (1) One (1) ELPO Dipping System, identified as 006, constructed in August 1985, using natural gas thermal incinerators identified as #1 through #3 on the drying ovens as VOC control, and exhausting to stack 02;
- (2) One (1) Primer Surfacer System, identified as 010, constructed in March 1994, using a natural gas fired regenerative thermal oxidizer with a maximum capacity of 16 MMBtu/hr as VOC control, and waterwash as PM control, and exhausting to stack 03. The Primer Surfacer System also includes applicators that purge internally through valves located inside the robot into a gun box. Additionally, the fixed bell cup wash purges into the booth and the robotic bells purge into a gun box within the booth. The booth is an enclosed manufacturing unit, which is directed to the control device described above;
- (3) One (1) Topcoat System, identified as 008, constructed in August 1985, using ten (10) natural gas fired catalytic oxidizers identified as #1 - #10 on the drying ovens as VOC control, with the maximum capacity of oxidizers #1 - #7 being 7.5 MMBtu/hr each, with the maximum capacity of oxidizers #8 - #10 being 9.5 MMBtu/hr each, using waterwash as PM control, and exhausting to stack 04;
- (4) Miscellaneous sealers/adhesives/additives/solvents, identified as 009, constructed in August 1985, using no controls, and exhausting to stacks 07 and 08;
- (5) One (1) Final Repair Operation, identified as 012, constructed in August 1985, using dry filters for particulate control, and exhausting to stack 06 and spot repair stalls;
- (6) One (1) Maintenance Paint Operation, identified as 013, constructed in August 1985, using no control, and exhausting to stack 10; and
- (7) Storage tanks, identified as 1 (solvent/thinner), 2 (solvent/thinner), 8 (reclaimed solvent), and two (2) 18,900 gallon waste purge solvent tanks, all constructed after July 23, 1984.

These facilities are subject to the following portions of Subpart IIII:

- (1) 40 CFR 63.3080;
- (2) 40 CFR 63.3081;
- (3) 40 CFR 63.3082(a)-(d), (g);
- (4) 40 CFR 63.3083(b), (d);
- (5) 40 CFR 63.3091(a)-(e);
- (6) 40 CFR 63.3092;
- (7) 40 CFR 63.3093;
- (8) 40 CFR 63.3094;
- (9) 40 CFR 63.3100;
- (10) 40 CFR 63.3101;
- (11) 40 CFR 63.3110;
- (12) 40 CFR 63.3120;
- (13) 40 CFR 63.3130;
- (14) 40 CFR 63.3131;
- (15) 40 CFR 63.3150;
- (16) 40 CFR 63.3151;
- (17) 40 CFR 63.3152;
- (18) 40 CFR 63.3160(b), (c);

- (19) 40 CFR 63.3161;
- (20) 40 CFR 63.3163;
- (21) 40 CFR 63.3164;
- (22) 40 CFR 63.3165;
- (23) 40 CFR 63.3166;
- (24) 40 CFR 63.3167(a), (b), (f);
- (25) 40 CFR 63.3168(a), (b), (c), (g);
- (26) 40 CFR 63.3169;
- (27) 40 CFR 63.3170(b);
- (28) 40 CFR 63.3171;
- (29) 40 CFR 63.3173;
- (30) 40 CFR 63.3174;
- (31) 40 CFR 63.3175;
- (32) 40 CFR 63.3176;
- (33) Table 1 to 40 CFR 63, Subpart IIII;
- (34) Table 2 to 40 CFR 63, Subpart IIII;
- (35) Table 3 to 40 CFR 63, Subpart IIII;
- (36) 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.

Pursuant to 40 CFR 63.3083, the Permittee shall comply with the requirements of 40 CFR 63, Subpart IIII by April 26, 2007.

- (c) The requirements of the National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations), 40 CFR 63.420, Subpart R, are not included in this permit for the Gasoline Fill Operation (014) because the Gasoline Fill Operation has a gasoline throughput of less than 75,700 liters per day and therefore does not meet the definition of bulk gasoline terminal, pursuant to 40 CFR 63.421.
- (c) The requirements of the National Emission Standards for Halogenated Solvent Cleaning, 40 CFR 63.460, Subpart T, are not included in this permit because the source does not use halogenated solvents.
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products, 40 CFR 63.3880, Subpart MMMM, are not included in this permit for this source. Pursuant to 40 CFR 63.3881(d), facilities that meet the applicability criteria in 40 CFR 63.3081(b) for the Surface Coating of Automobiles and Light-Duty Trucks NESHAP (40 CFR 63, Subpart IIII) can choose to comply with the requirements of Subpart IIII in lieu of complying with Subpart MMMM.
- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products, 40 CFR 63.4480, Subpart PPPP, are not included in this permit because this source does not engage in the coating of plastic parts.
- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63.6580, Subpart ZZZZ, are not included in this permit because all reciprocating internal combustion engines at this source are considered existing emergency equipment. Pursuant to 40 CFR 63.6590(b)(3), existing emergency stationary reciprocating internal combustion engines do not have to meet the requirements of 40 CFR 63, Subpart ZZZZ and no initial notification is necessary.

### State Rule Applicability - Entire Source

#### 326 IAC 1-6-3 (Preventive Maintenance Plan)

The source is subject to 326 IAC 1-6-3.

#### 326 IAC 1-5-2 (Emergency Reduction Plans)

The source is subject to 326 IAC 1-5-2. An Emergency Reduction Plan was received by IDEM on June 2, 2006.

#### 326 IAC 2-2 (Prevention of Significant Deterioration)

This stationary source is major for PSD because the emissions of at least one attainment pollutant are greater than two hundred fifty (>250) tons per year, and is not one of the twenty-eight (28) listed source categories. The following PSD-related requirements are applicable to this source:

- (a) Pursuant to Permit PSD (02) 1575, issued on November 30, 1984 (as referenced in Part 70 Operating Permit No. 003-5959-00036):
  - (1) NO<sub>x</sub> emissions from Boiler 003 shall not exceed 0.2 lb/MMBtu when combusting natural gas and shall not exceed 0.3 lb/MM Btu when combusting fuel oil. This limit is federally enforceable.
  - (2) PM emissions from Boiler 003 shall not exceed 0.015 lb/MMBtu when combusting natural gas, and shall not exceed 0.056 lb/MMBtu when combusting fuel oil.
- (b) Pursuant to CP (003) 2000, issued on September 9, 1991 (as referenced in Part 70 Operating Permit No. 003-5959-00036):
  - (1) PSD BACT for Boiler 004 NO<sub>x</sub> is Flue Gas Regeneration (FGR) and Low NO<sub>x</sub> Burners (LNB).
  - (2) NO<sub>x</sub> emissions from Boiler 004 shall not exceed 0.098 lb/MMBtu input from the combustion of natural gas and shall not exceed 0.13 lb/MMBtu input from the combustion of No. 2 fuel oil. The use of these controls is federally enforceable.
  - (3) No. 2 fuel oil usage for Boiler 004 shall not exceed 1.1 million gallons and this, with a fuel sulfur content of 0.49% shall limit SO<sub>2</sub> emissions to less than 40 tons per 12 consecutive month period. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply.
- (c) Pursuant to CP 003-2524, issued on October 13, 1992 (as referenced in Part 70 Operating Permit No. 003-5959-00036):
  - (1) No. 2 fuel oil usage for Boiler 005 shall not exceed 3.2 million gallons. This limit with an average heat content of 140,000 Btu/gallons, based on a 12 month rolling average, will limit NO<sub>x</sub> emissions to less than 40 tons per consecutive 12 month period. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) do not apply.
  - (2) NO<sub>x</sub> emissions from Boiler 005 shall not exceed 0.098 lb/MMBtu from the combustion of natural gas and shall not exceed 0.13 lb/MMBtu from the combustion of No. 2 fuel oil.

Note: A netting analysis was conducted in CP 003-2524 so that in combination with the limits above, the net emissions increase from Boiler 005 was less than the significant

levels for major modifications pursuant to 326 IAC 2-2.

- (d) Pursuant to SSM No. 003-12830-00036, issued on March 5, 2001:
- (1) NO<sub>x</sub> emissions from the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) shall not exceed 100 pounds of NO<sub>x</sub> per million standard cubic feet of natural gas.
  - (2) The natural gas throughput to the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) shall not exceed six hundred and ten (610) million cubic feet of natural gas per twelve (12) consecutive month period, with compliance determined at the end of each month.

Compliance with these limits shall limit the NO<sub>x</sub> emissions from the twenty (20) natural gas-fired burners (MOD 1 - MOD 10) to less than forty (40) tons per year and render 326 IAC 2-2 not applicable.

- (e) Pursuant to Permit PSD (02) 1575, issued on November 30, 1984 (as referenced in Part 70 Operating Permit No. 003-5959-00036), the source has an entire source VOC usage limit of 3,204 tons of VOC per twelve (12) consecutive month period, with compliance determined at the end of each month. This limit is based on total VOC usage from all surface coating and cleaning operations, including ELPO Dipping System (006), Primer Surfacer System (010), Topcoat System (008), Miscellaneous Sealers/Adhesives/Additives/Solvents (009), Final Repair Operation (012), and Maintenance Paint Operation (013). The federal enforceability of the controls is discussed as follows:
- (1) ELPO Dipping System, identified as 006:
    - (A) The use of natural gas thermal incinerators, identified as #1 through #3, on the drying ovens is used as VOC control. The actual dipping is not controlled, but the drying process is controlled. The control was not included in the NSPS Equivalency Demonstration or in the calculated maximum pounds of VOC per hour and ton per year emission rates. Therefore, it is not necessary to make the control federally enforceable. ELPO emissions are calculated as follows when using a control device to demonstrate compliance with an applicable emission limit:  
$$\{\text{VOC Input to ELPO Dipping System in tons per month} \times (1 - \text{control efficiency})\} = \text{Total VOC Emissions (ton/mo)}$$
    - (B) For PM, no control is necessary, because the transfer efficiency for dip coating is 100%.
  - (2) The Primer Surfacer System, identified as 010:
    - (A) A natural gas fired regenerative thermal oxidizer, with a maximum capacity of 16 MMBtu/hr, is used as VOC control. An overall control efficiency of 78.4% based on a capture of 80% and a destruction efficiency of 95%, is necessary for compliance with the 40 CFR 60, Subpart MM limit of 1.4 kg VOC/l of applied coating solids. Therefore, the use of the regenerative thermal oxidizer as control on the Primer Surfacer System, is federally enforceable. Primer Surfacer emissions are calculated as follows:  
$$\{\text{VOC Input to Primer Surfacer in tons per month} \times (\text{capture efficiency (89\%)} \times (1 - \text{destruction efficiency}))\} = \text{Total VOC Emissions from Primer}$$

Surfacer (tons/mo)

- (B) For PM, waterwash is used as control.
- (3) The Topcoat (electrostatic/air atomized) System, identified as 008:
- (A) Natural gas fired catalytic oxidizer ovens, identified as #1 - #10, with maximum capacity of the oxidizer ovens #1 - #7 being 7.5 MMBtu/hr each, and the maximum capacity of oxidizer ovens #8 - #10 being 9.5 MMBtu/hr, each used as VOC control. The actual painting application process is not controlled, only the drying process is controlled. In calculating emissions, 80% of the topcoat VOC emissions are emitted before the reaching the dryer, where of the remaining 20%, 98% are controlled by the oxidizer ovens. Again, the control was not included in the NSPS Equivalency Demonstration or in the calculated maximum pounds of VOC per hour and ton per year emission rates. Therefore, it is not necessary to make the control federally enforceable. Topcoat emissions calculations are as follows when using a control device to demonstrate compliance with an applicable emission limit:
- $$\{ \text{VOC Input to base coating in tons per month} \times ((100 - \text{controlled emissions})/100) \} + \{ \text{VOC Input to clear coating in tons per month} \times (100 - \text{uncontrolled emissions})/100 \} \times (1 - \text{control efficiency}) = \text{Total VOC Emissions from Top coating (tons/mo)}$$
- (B) For PM, a waterwash is used as control.

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 under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. In accordance with the compliance schedule specified in 326 IAC 2-6-3, an emission statement must be submitted annually by July 1 of each year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

- (a) Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in the permit:
- (1) 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.
- (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.
- (b) Pursuant to Significant Permit Modification No. 003-24514-00036, issued on March 28, 2008 and 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity for boiler 003 shall meet the following:
- (1) When operating alone, the opacity from boiler 003 shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period. 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) in a six (6) hour period. The opacity standards apply except during periods of startup, shutdown, or malfunction.

- (2) When operating with boiler 004 and/or boiler 005, the opacity from boiler 003 shall not exceed twenty percent (20%) per six (6) minute average except for one six (6) minute averaging period per hour of not more than twenty-seven percent (27%) opacity. The opacity standards apply except during periods of startup, shutdown, or malfunction.
- (c) Pursuant to Significant Permit Modification No. 003-24514-00036, issued on March 28, 2008, 40 CFR 60, Subpart Db, and 326 IAC 5-1-1(a), Boilers 004 and 005 are not subject to 326 IAC 5-1 because a specific opacity limitation has been established in 326 IAC 12, which incorporates by reference NSPS, 40 CFR 60, Subpart Db.

#### 326 IAC 6-4 (Fugitive Dust)

- (a) Pursuant to 326 IAC 6-4-2, a source generating fugitive dust shall be in violation if any of the following criteria are violated:

- (1) A source or combination of sources which cause to exist fugitive dust concentrations greater than sixty-seven percent (67%) in excess of ambient upwind concentrations as determined by the following formula:

$$P = \frac{100 * (R - U)}{U}$$

Where

P = Percentage increase

R = Number of particles of fugitive dust measured at downward receptor site

U = Number of particles of fugitive dust measured at upwind or background site

- (2) The fugitive dust is comprised of fifty percent (50%) or more respirable dust, then the percent increase of dust concentration in (1) above shall be modified as follows:

$$P_R = (1.5 \pm N) * P$$

Where

N = Fraction of fugitive dust that is respirable dust

P<sub>R</sub> = allowable percentage increase in dust concentration above background

P = no value greater than sixty-seven percent (67%)

- (3) The ground level ambient air concentrations exceed fifty (50) micrograms per cubic meter above background concentrations for a sixty (60) minute period.
- (4) If fugitive dust is visible crossing the boundary or property line of a source. This subdivision may be refuted by factual data expressed in subdivisions (1), (2) or (3) of this section. 326 IAC 6-4-2(4) is not federally enforceable.
- (b) Pursuant to 326 IAC 6-4-6(6) (Exceptions), fugitive dust from a source caused by adverse meteorological conditions will be considered an exception to this rule (326 IAC 6-4) and therefore not in violation.

#### 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations) applies to sources of fugitive particulate matter emissions located in specific nonattainment areas for particulate matter as of the promulgation of the rule. Allen County is not specifically listed in the rule. Therefore, the requirements of 326 IAC 6-5 do not apply to this source.

**State Rule Applicability – Individual Facilities**

**326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))**

Pursuant to 326 IAC 2-4.1, case-by-case Maximum Achievable Control Technology (MACT) determinations must be made for facilities that will emit greater than ten (10) tons per year for a single HAP and/or greater than twenty-five (25) tons per year for a combination of HAPs that are constructed or reconstructed after July 27, 1997. The requirements of 326 IAC 2-4.1 do not apply to electric utility steam generating units until these units are added to the source category list under Section 112(c)(5) of the Clean Air Act; major sources specifically regulated or exempted from regulation by a standard issued pursuant to Section 112(d), 112(h), or 112(j) of the Clean Air Act; stationary sources that are within a source category that has been deleted from the source category list under Section 112(c)(9) of the Clean Air Act; or research and development activities.

- (a) Boiler 003, Boiler 004, Boiler 005, the ELPO Dipping System (006), the Primer Surfacer System (010), the Topcoat System (008), Miscellaneous sealers/adhesives/additives/solvents (009), the Final Repair Operation (012), the Maintenance Paint Operation (013), and the Gasoline Fill Operation (014) were all constructed before the applicability date of July 27, 1997. Therefore, the requirements of 326 IAC 2-4.1 do not apply to the above listed units.
- (b) The twenty (20) natural gas fired air supply house burners, constructed in 2001 identified as MOD 1 through MOD 10 do not emit greater than ten (10) tons per year for a single HAP or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, the requirements of 326 IAC 2-4.1 do not apply to MODs 1 through 10.
- (c) All other units and insignificant activities were constructed before the applicability date of July 27, 1997 and/or do not emit greater than ten (10) tons per year for a single HAP or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, the requirements of 326 IAC 2-4.1 do not apply to any units at the General Motors Corporation - Truck Group as of the issuance of this Part 70 Operating Permit Renewal No. 003-23379-00036.

**326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating)**

- (a) 326 IAC 6-2-3 applies to sources of indirect heating that were existing and in operation before September 21, 1983. Boilers 003, 004, and 005 were permitted at the General Motors Corporation - Truck Group after this date. Therefore, the requirements of 326 IAC 6-2-3 do not apply to Boilers 003, 004, or 005.
- (b) No other units at General Motors Corporation - Truck Group are considered sources of indirect heating. Therefore, 326 IAC 6-2 does not apply to any other units.

**326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)**

- (a) 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating) applies to indirect heating facilities receiving permits to construct on or after September 21, 1983. The requirements of 326 IAC 6-2-4 apply to Boilers 003, 004, and 005. Particulate emissions shall be limited for Boilers 003, 004, and 005 as shown in the table below.

Unit	Year Permitted	Heat Input Capacity (MMBtu/hr)	Q: Source Maximum Operating Capacity Rating (MMBtu/hr)	Pt: Particulate Emission Limitation (lb/MMBtu)
Boiler 003	1985	240	240	0.26
Boiler 004	1992	228	468	0.22
Boiler 005	1993	228	696	0.20

These limitations were based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

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. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

For Q less than 10 MMBtu/hr, Pt shall not exceed 0.6. For Q greater than or equal to 10,000 MMBtu/hr, Pt shall not exceed 0.1.

As each new indirect heating facility is added to a plant Q will increase. As a result, the emission limitation for each progressively newer facility will be more stringent until the total plant capacity reaches 10,000 MMBtu/hr after which the emission limit for each newer facility will be 0.1 lb/MMBtu heat input. The rated capacities for facilities regulated by 326 IAC 12, New Source Performance Standards, shall be included when calculating Q for subsequent facilities.

Based on AP-42 emission factors for natural gas combustion, No. 2 fuel oil combustion, and No. 6 fuel oil combustion and the vendor estimates for particulate emissions from landfill gas combustion, each boiler is capable of complying with the above 326 IAC 6-2-4 particulate emission limitations for each fuel scenario.

- (b) No other units at General Motors Corporation - Truck Group are considered sources of indirect heating. Therefore, 326 IAC 6-2 does not apply to any other units.

#### 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) applies to particulate emissions from manufacturing processes, which are activities used to produce intermediate or final products. Therefore, items such as space heaters and process heaters (007), MOD 1 through MOD 10, Maintenance Paint Operation (013), and other general maintenance operations are not subject to the requirements of 326 IAC 6-3. Note: the Maintenance Paint Operation is used for general maintenance activities around the plant and is not used in the manufacture of product.
- (b) Pursuant to 326 IAC 6-3-1(b)(1), combustion for indirect heating is exempt from 326 IAC 6-3. Therefore, the requirements of 326 IAC 6-3 do not apply to Boilers 003, 004, and 005.
- (c) Pursuant to 326 IAC 6-3-1(b)(5)-(8), surface coating using dip, roll, flow, or brush coating are exempt from 326 IAC 6-3. Therefore, the requirements of 326 IAC 6-3 do not apply to the ELPO Dipping System (006) or the Miscellaneous Sealers/Adhesives/Additives/Solvents (009).
- (d) Pursuant to 326 IAC 6-3-1(13), trivial activities as defined at 326 IAC 2-7-1(40) are exempt from 326 IAC 6-3.
- (e) The Primer Surfacer System (010), Topcoat System (008), and Final Repair Operation (012) are subject to the requirements of 326 IAC 6-3. Pursuant to 326 IAC 6-3-2(d), these surface coating operations shall be controlled by a dry particulate filter, waterwash, or an equivalent control device. The Permittee shall operate the control device in accordance with the manufacturer's specifications.

The Primer Surfacer System (010) and Topcoat System (008) both use waterwash for particulate control. The Final Repair Operation (012) uses dry particulate filters for

particulate control. The particulate control devices shall be in operation at all times the Primer Surfacer System (010), Topcoat System (008), and Final Repair Operation (012) are in operation.

- (f) Pursuant to 326 IAC 6-3-2(e)(2), when the process weight rate is less than one hundred (100) pounds per hour, the allowable rate of emission is 0.551 pounds per hour.
- (g) Pursuant to 326 IAC 6-3-2(e), the allowable PM emission rate from a manufacturing process shall not exceed E, the pounds per hour allowable emission rate, when processing a process weight up to sixty thousand (60,000) pounds per hour as determined by the following equation:

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

#### 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

Pursuant to 326 IAC 7-1.1-2:

- (a) Sulfur dioxide emissions from Boiler 003 shall not exceed 1.6 lb/MMBtu when combusting No. 6 fuel oil and shall not exceed 0.5 lb/MMBtu when combusting No. 2 fuel oil.
- (b) Sulfur dioxide emissions from Boiler 004 shall not exceed 0.5 lb/MMBtu when combusting No. 2 fuel oil.
- (c) Sulfur dioxide emissions from Boiler 005 shall not exceed 0.5 lb/MMBtu when combusting No. 2 fuel oil.

#### 326 IAC 7-2 (Sulfur Dioxide Reporting Requirements)

Pursuant to 326 IAC 7-2, for Boilers 003, 004, and 005, the Permittee shall submit to the Office of Air Quality upon request the following report based on fuel sampling and analysis data obtained in accordance with procedure specified under 326 IAC 3-7: reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate in pounds per MMBtu. Compliance shall be determined using a calendar month average sulfur dioxide emission rate in pounds per MMBtu.

#### 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations)

- (a) Pursuant to 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations), the volatile organic compounds (VOC) from the application, flash-off, and curing of prime, topcoat, and final repair coatings on automobile and light duty truck bodies, hoods, doors, cargo boxes, fenders, and grill opening panels shall not exceed:
  - (1) 1.9 pounds per gallon of coating (0.23 kg/l), excluding water, delivered to the applicator from prime application, flash-off area and oven operations associated with the ELPO Dipping System (006);
  - (2) 2.8 pounds per gallon of coating (0.34 kg/l), excluding water, delivered to the applicator from topcoat application, flash-off area and oven operations associated with the Primer Surfacer System (010) and the Topcoat System (008); and
  - (3) 4.8 pounds per gallon of coating (0.58 kg/l), excluding water, delivered to the applicator from final repair application, flash-off area and oven operations associated with the Final Repair Operation (012).

Note: When the Primer Surfacer System (010) was permitted in 1994, a VOC limit was established pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating) because the 326

IAC 8-2-2 rule does not specifically list an emission limit for primer surfacer operations. IDEM, OAQ has determined, however, that 326 IAC 8-2-9 (Miscellaneous Metal Coating) limits do not apply to the Primer Surfacer System because this unit is part of an automobile and light duty truck coating operation, for which there is an industry-specific article 8 rule (326 IAC 8-2-2, Automobile and Light Duty Truck Coating Operations). Recent guidance from US EPA<sup>1</sup> indicates that primer surfacer and topcoat applications are becoming progressively indistinguishable from each other. Unlike the initial electrodeposition prime coating, the primer surfacer coatings are applied by spray application and primer surfacers can be color-keyed to specific topcoat colors to provide additional color layers in case the primary color coating is damaged<sup>2</sup>. US EPA has interpreted that the recommended VOC emission limit for primer surfacer operations is the same as the recommended limit for topcoat operations in the 1977 Control Techniques Guidelines<sup>3</sup>. Therefore, consistent with US EPA, the VOC emission limit for the Primer Surfacer System (010) at General Motors Corporation - Truck Group shall be the same as the VOC emission limit for topcoat operations pursuant to 326 IAC 8-2-2(b)(2).

- 1 *Control Techniques Guidelines for Automobile and Light-Duty Truck Assembly Coatings (EPA-453/R-08-006)*
- 2 *Regulatory Impact Analysis for the Final Automobile and Light-Duty Truck Surface Coating NESHAP (EPA-452/R-04-007)*
- 3 *Control of Volatile Organic Emissions from Existing Stationary Sources Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks (EPA-450/2-77-008)*

(b) Pursuant to 326 IAC 8-1-2, the emission limitations specified in paragraph (a) above shall be achieved through one or any combination of thermal or catalytic incineration, higher solids (low solvent) coatings, water borne coatings, and/or equivalent emission limitations.

- (1) Pursuant to 326 IAC 8-1-2(b), VOC emissions as allowed in (a)(1) and (a)(3) above from the ELPO Dipping System (006) and the Final Repair Operation (012) shall be limited to no greater than the equivalent emissions of 2.6 pounds of VOC per gallon of coating solids and 13.8 pounds of VOC per gallon of coating solids, respectively. This equivalency was determined by the following equation:

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

Where:

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

A solvent density of seven and thirty-six hundredths (7.36) pounds of VOC per gallon of solvent shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit. Actual solvent density shall be used to determine compliance.

- (2) Pursuant to 326 IAC 8-2-1(a), VOC emissions as allowed in (a)(2) above from the Primer Surfacer System (010) and the Topcoat System (008) shall be limited to no greater than an equivalent emission limitation based on an actual measured transfer efficiency higher than 30%. The equivalent emission limitation is 1.83 kilograms of VOC per liter solids deposited (15.1 pounds per gallon solids deposited). Compliance with the above equivalent emission limitation shall be

determined by use of procedures found in "Protocol of Determining the Daily Volatile Organic Compound Emission Rate of Automobile and Light-Duty Truck Primer-Surfacer and Topcoat Operations", EPA-453/R-08-002, September 2008.

- (3) Pursuant to 326 IAC 8-1-2(c), when used to comply with the emission limitations in paragraph (a) above, the overall efficiency of the thermal and/or catalytic oxidizers shall be no less than the equivalent overall efficiency calculated by the following equation:

$$O = 100 \times (V - E)/V$$

Where:

- V = The actual VOC content of the coating, or, if multiple coatings are used, the daily weighted-average VOC content of all coatings, as applied to the subject coating line as determined by the applicable test methods and procedures specified in 326 IAC 8-1-4 in units of pounds of VOC per gallon of coating solids, as applied;
- E = Equivalent emission limit in pounds of VOC per gallon of coating solids, as applied; and
- O = Equivalent overall efficiency of the capture system and control device as a percentage.

#### 326 IAC 8-2-9 (Miscellaneous Metal Coating)

- (a) The sealers and adhesives associated with the activities identified as 009 and solvents sprayed during cleanup or color change are subject to 326 IAC 8-2-9 (Miscellaneous Metal Coating), since they are not subject to 326 8-2-2 (Automobile and Light Duty Truck Coating). Pursuant to 326 IAC 8-2-9, the following limitations apply:

- (1) The miscellaneous sealers and adhesives (009) shall not emit any VOCs in excess of 3.5 pounds per gallon of coating (0.42 kg/l), excluding water, delivered to a coating applicator in a coating application system that is air dried or forced warm air dried at temperatures up to 194 degrees Fahrenheit;
- (2) Pursuant to 326 IAC 8-1-2(a) the emission limitations specified in paragraph (a) above, shall be achieved through one or any combination of higher solids (low solvent) coatings, water borne coatings and/or an equivalent emission limitation.
- (3) Pursuant to 326 IAC 8-1-2(b), VOC emissions as allowed in paragraph (a) above from the Miscellaneous Sealers and Adhesives (009) shall be limited to no greater than the equivalent emissions of 6.7 pounds of VOC per gallon of coating solids. This equivalency was determined by the following equation:

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

- Where:
- L = Applicable emission limit in pounds of VOC per gallon of coating.
- D = Density of VOC in coating in pounds per gallon of VOC.
- E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

A solvent density of seven and thirty-six hundredths (7.36) pounds of VOC per gallon of solvent shall be used to determine equivalent pounds of VOC per gallon of solids for the applicable emission limit. Actual solvent density shall be used to determine compliance.

- (b) Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.
- (c) Pursuant to 326 IAC 8-2-1(a)(2), the requirements of 326 IAC 8-2-9 apply to miscellaneous metal parts coating facilities which commence construction after November 1, 1980, located in any county, and have potential emissions of twenty-five (25) tons or greater per year of VOC. The Maintenance Paint Operation (013) has potential VOC emissions of less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-2-9 do not apply to the Maintenance Paint Operation (013).

#### 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

The provisions of 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities) applies to petroleum liquid storage vessels with capacities greater than 39,000 gallons containing volatile organic compounds whose true vapor pressure is greater than 1.52 psi. The two gasoline storage tanks have capacities less than 39,000 gallons. Therefore, the requirements of 326 IAC 8-4-3 do not apply to the gasoline storage tanks at this source.

#### 326 IAC 8-4-6 (Gasoline Dispensing Facilities)

Pursuant to 326 IAC 8-4-1(e), the requirements of 326 IAC 8-4-6 (Gasoline Dispensing Facilities) applies to gasoline storage tanks installed after July 1, 1989. The gasoline dispensing facility (014) was constructed in 1985. Therefore, the requirements of 326 IAC 8-4-6 do not apply.

#### 326 IAC 8-4-9 (Leaks from Transports and Vapor Collection Systems: Records)

Pursuant to 326 IAC 8-4-9(a)(1), the requirements of 326 IAC 8-4-9 are applicable to all vapor balance systems and vapor control system at sources subject to 326 IAC 8-4-4, 8-4-5, or 8-4-6. This source does not have any facilities that are subject to the provisions of 326 IAC 8-4-4, 8-4-5, or 8-4-6. Therefore, the requirements of 326 IAC 8-4-9 do not apply.

#### 326 IAC 8-6 (Organic Solvent Emission Limitations)

Pursuant to 326 IAC 8-6-1, the requirements of this rule are not applicable to organic solvents at this source because the source was constructed after January 1, 1980.

#### 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1(a), the provisions of 326 IAC 9 apply to stationary vessels that are used to store volatile organic liquid that are located in Clark, Floyd, Lake, or Porter County. Therefore, the requirements of 326 IAC 9 do not apply to this source since it is located in Allen County.

#### 326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

326 IAC 8-1-6 (New Facilities; General Reduction Requirements) requires a State BACT analysis for new facilities (as of January 1, 1980) that have potential emissions of twenty-five (25) tons or more per year of VOC; are located anywhere in the state; and that are not otherwise regulated by other provisions of 326 IAC 8, 326 IAC 20-48, or 326 IAC 20-56.

- (a) Boilers 003, 004, and 005, space heaters and process heaters (007), and MOD 1 through MOD 10 all have potential VOC emissions of less than twenty-five (25) tons per year; therefore, the requirements of 326 IAC 8-1-6 are not applicable to these units.

- (b) The ELPO Dipping System (006), the Primer Surfacer System (010), the Topcoat System (008), and the Final Repair Operation (012) are subject to the requirements of 326 IAC 8-2-2 (Surface Coating of Automobiles and Light Duty Trucks). Therefore, the requirements of 326 IAC 8-1-6 do not apply to these units.
- (c) The Miscellaneous Sealers/Solvents (009) and the Maintenance Paint Operation (013) are subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating). Therefore, the requirements of 326 IAC 8-1-6 do not apply to these units.
- (d) Gasoline Fill Operation (014) has a potential to emit VOC of less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply to the Gasoline Fill Operation.

#### 326 IAC 9 (Carbon Monoxide Emission Rules)

326 IAC 9 (Carbon Monoxide Emission Rules) applies to stationary sources of carbon monoxide emissions commencing operation after March 21, 1972, and for which an emission limit has been established under 326 IAC 9-1-2. Emission limits have been established in 326 IAC 9-1-2 for petroleum refining, ferrous metal smelters, and refuse incineration and refuse burning equipment. None of the processes for which emission limits have been established in 326 IAC 9-1-2 are applicable to the emission units at General Motors Corporation - Truck Group. Therefore, the requirements of 326 IAC 9 do not apply to any emission units at General Motors Corporation - Truck Group.

#### 326 IAC 10 (Nitrogen Oxide Rules)

- (a) 326 IAC 10-1 (Nitrogen Oxide Control in Clark and Floyd Counties) applies to sources of NO<sub>x</sub> Emissions located in Clark or Floyd Counties. General Motors Corporation - Truck Group is located in Allen County; therefore, the requirements of 326 IAC 10-1 do not apply to any of the emission units at General Motors Corporation - Truck Group.
- (b) 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories) applies to certain Portland cement kilns, specific boilers, and any other blast furnace gas fired boiler with a heat input greater than 250 MMBtu/hr. Boilers 003, 004, and 005 are not specifically mentioned in the rule and do not meet the definition of a blast furnace gas fired boiler. Therefore, the requirements of 326 IAC 10-3 do not apply to Boilers 003, 004, or 005.

### **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.

### ***Compliance Determination Requirements***

- (1) The Compliance Determination Requirements applicable to Boilers 003, 004, and 005 are as follows:

#### Sulfur Dioxide Emissions and Sulfur Content

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pound per million Btu heat input by:
- (1) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
    - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon refilling.
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method

These requirements are required to ensure compliance with 326 IAC 7-1.1-2 (SO<sub>2</sub> Emissions Limitations) and 326 IAC 7-2-1 (Compliance).

#### Testing Requirement

Within 180 days of installation of the replacement burners for Boiler 003, as approved in Administrative Amendment No. 003-26644-00036, issued on July 31, 2008, the Permittee shall perform NO<sub>x</sub> and CO testing on Boiler 003 when using only landfill gas, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing.

This testing is required to verify vendor supplied emission data for the combustion of landfill gas. IDEM, OAQ understands that landfill gas has a lower heating value than natural gas and that the boiler is not capable of running at maximum capacity on landfill gas alone. Testing shall be conducted using the maximum amount of landfill gas that the boiler can run at, even if this is less than 95% of the maximum capacity of the boiler.

- (3) The Compliance Determination Requirements applicable to the surface coating and cleaning operations are as follows:

#### PSD VOC BACT Limit

Compliance with the VOC PSD BACT limit in Conditions D.2.1, D.3.1, and D.4.1 shall be determined within 30 days of the end of each month based on the total volatile organic compound usage for coating and cleaning operations per month, and adding the result to the calculated VOC usage from the previous eleven (11) months.

This Compliance Determination requirement is necessary to demonstrate compliance with the PSD BACT limit established pursuant to 326 IAC 2-2.

#### VOC Contents

Compliance with the VOC contents contained in Conditions D.2.2, D.2.3, D.3.2, and D.4.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

This Compliance Determination requirement is necessary to demonstrate compliance with 326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations) and 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations).

#### VOC Controls

Pursuant to 326 IAC 8-1-2(a) and to comply with Conditions D.2.1, D.2.2, D.3.1, D.3.2, D.4.1, and/or D.4.2, the Permittee shall:

- (a) Operate the thermal incinerators #1 - #3 for the ELPO Dipping System (006) at all times the processes that they are controlling are in operation, if the abatement credit is used to show compliance with Conditions D.2.1 and/or D.2.2.
- (b) Operate the regenerative thermal oxidizer for the Primer Surfacer System (010) at all times the processes that it controls are in operation, when used to show compliance with Conditions D.3.1 and/or D.3.2.
- (c) Operate the catalytic oxidizers #1 - #10 for the Topcoat System (008) at all times the processes that they are controlling are in operation, if the abatement credit is used to show compliance with Conditions D.4.1 and/or D.4.2.

This Compliance Determination requirement is included to indicate that the Permittee has the option of complying with 326 IAC 8-2-2 by using thermal or catalytic oxidation.

#### PM Controls

Pursuant to 326 IAC 6-3-2(d) and to comply with Conditions D.2.4, D.3.3, and D.4.3, the Permittee shall:

- (a) Operate the dry filters at all times the Final Repair Operation (012) is in operation.
- (b) Operate the waterwash system at all times the Primer Surfacer System (010) is in operation.
- (c) Operate the waterwash system at all times the Topcoat System (008) is in operation.

This Compliance Determination requirement is necessary to demonstrate compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes).

#### Testing Requirements

The following facilities are required to stack test, when the control devices are used to show compliance with Conditions D.2.1, D.2.2, D.3.1, D.3.2, D.4.1, and/or D.4.2 as follows:

- (a) Within two and one-half (2.5) years from the date of the most recent valid compliance demonstration, the Permittee shall conduct testing for VOC capture and destruction efficiency for one (1) of the thermal incinerators, #1 - #3, controlling the ELPO Dipping System (006) emissions. This test shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing on an incinerator shall not be repeated until each one has been tested.

- (b) Within two and one-half (2.5) years from the date of the most recent valid compliance demonstration, the Permittee shall conduct testing for VOC capture and destruction efficiency for the regenerative thermal oxidizer controlling the Primer Surfacer System (010) emissions. This test shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration.
- (c) Within two and one-half (2.5) years from the date of the most recent valid compliance demonstration, the Permittee shall conduct testing for VOC capture and destruction efficiency for two (2) of the 7.5 MMBtu/hr catalytic oxidizers and one (1) of the 9.5 MMBtu/hr catalytic oxidizers. This test shall be repeated every two and one-half (2.5) years from the date of the most recent valid compliance demonstration. Testing on a catalytic oxidizer shall not be repeated until each one has been tested.

The Permittee shall use the determined capture and destruction efficiencies from the most recent performance test for determining compliance when the control devices are used to show compliance with Conditions D.2.1, D.2.2, D.3.1, D.3.2, D.4.1, and/or D.4.2. Testing shall be conducted in accordance with Section C – Performance Testing.

This testing is required to determine VOC control efficiencies from the thermal and catalytic incinerators if they are being used to demonstrate compliance with the PSD BACT limit and/or the limits established in 326 IAC 8-2-2.

### ***Compliance Monitoring Requirements***

- (1) The Compliance Monitoring Requirements applicable to Boilers 004 and 005 are as follows:

#### Continuous Emission Monitoring

- (a) Pursuant to 326 IAC 2-2, 326 IAC 3-5, and 326 IAC 12, the Permittee shall continuously monitor and record the following parameters to demonstrate compliance with Conditions D.1.1 and Section E.1:
  - (1) Nitrogen oxide concentration for Boilers 004 and 005, and
  - (2) Opacity for Boilers 004 and 005, unless the Permittee uses one of the following to meet compliance monitoring requirements:
    - (A) Boiler 004 and Boiler 005 use a PM CEMS to monitor PM emissions; or
    - (B) Boiler 004 and Boiler 005 burn only liquid (excluding residual oil) or gaseous fuels with potential SO<sub>2</sub> emissions of 0.060 lb/MMBtu or less and do not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions. The Permittee shall maintain fuel records of the sulfur content of the fuels burned, as described in Condition D.1.11; or
    - (C) Boiler 004 and Boiler 005 burn coke oven gas alone or in combination with fuels meeting the criteria in Condition D.1.9(a)(2)(B) and do not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions; or
    - (D) Boiler 004 and Boiler 005 do not use post-combustion technology (except a wet scrubber) for reducing PM, SO<sub>2</sub>, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from Boiler 004 and Boiler 005 are maintained at levels less than or equal to 0.15 lb/MMBtu on a steam generating unit operating day average basis. The Permittee shall demonstrate compliance by the following:

- (i) A CO CEM shall be installed, certified, maintained, and operated in accordance with Condition D.1.9(c) and (d).
  - (ii) The Permittee shall calculate the one (1) hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the boiler. The twenty-four (24) hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.
  - (iii) The Permittee shall evaluate the preceding twenty-four (24) hour average CO emission level each steam generating unit operating day excluding periods of boiler startup, shutdown, or malfunction. If the twenty-four (24) hour average CO emission level is greater than 0.15 lb/MMBtu, the Permittee shall initiate an investigation of the relevant equipment and control systems within twenty-four (24) hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the twenty-four (24) hour average CO emission level to 0.15 lb/MMBtu or less.
  - (iv) The Permittee shall record the CO measurements and calculations performed in accordance with Condition D.1.9(a)(2)(D)(ii) and (iii) and any corrective actions taken. The record of corrective action taken must include the date and time during which the twenty-four (24) hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.
- (E) Boilers 004 and 005 burn fuel oils that contain less than or equal to 0.30 weight percent sulfur and a trained employee obtains visible emission notations in accordance with Condition D.1.10. The commissioner may require visible emission readings in accordance with 40 CFR 60, Appendix A-4, as required, to assure compliance with opacity requirements.
- (b) The continuous monitoring systems have been installed and operational prior to conducting the performance tests. A monitoring protocol has been performed in accordance with the applicable procedures under 40 CFR 60, Appendix B, Performance Specification 1 and 326 IAC 3-5.
  - (c) The Permittee shall record the output of the system and shall perform the required record keeping, pursuant to 326 IAC 3-5-6, and reporting, pursuant to 326 IAC 3-5-7.
  - (d) In instances of CEM downtime, compliance with the NO<sub>x</sub> emission limits established in Condition D.1.1 shall be determined by the use of the appropriate AP-42 emission factors. Compliance with the particulate emission limits contained in Conditions D.1.1 and D.1.4 shall be determined by burning clean fuels such as natural gas, landfill gas or distillate fuel oil.

These monitoring conditions are necessary to ensure compliance with the limits established pursuant to 326 IAC 2-2 and 40 CFR 60, Subpart Db, which is incorporated by reference as 326 IAC 12.

Visible Emissions Notations

- (a) Visible emission notations of the exhaust from stack 01 for Boilers 003, 004 and 005 shall be performed once per day during normal daylight operations when burning fuel oil. A trained employee shall record whether emissions are normal or abnormal. Visible emission notations are not required when the Permittee initiates operation of the boilers on fuel oil to verify oil burning capability and each boiler operates on fuel oil less than one (1) hour on a quarterly basis.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

These monitoring conditions are necessary to ensure compliance with 326 IAC 5-1 (Opacity Limitations), 326 IAC 7-1.1-2 (SO<sub>2</sub> Emissions Limitations), and 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating).

- (2) The Compliance Monitoring Requirements applicable to the surface coating operations are as follows:

Thermal or Catalytic Oxidizer Temperature

The following requirements shall apply only if the VOC reduction credit for the incinerators is used to show compliance with Conditions D.2.1, D.2.2, D.3.1, D.3.2, D.4.1, and/or D.4.2:

- (a) A continuous monitoring system shall be calibrated and maintained on each thermal and catalytic oxidizer for measuring operating temperature. For the purpose of this condition, continuous means no less often than once per minute. The output of this system shall be recorded as a 3-hour average.
- (b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with limits in Conditions D.2.1, D.2.2, D.3.1, D.3.2, D.4.1, and/or 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 3-hour average temperature as observed during the compliant stack test.

This monitoring condition is necessary to ensure that the thermal and catalytic oxidizers are working properly when used to demonstrate compliance with the PSD BACT limit and/or the 326 IAC 8-2-2 limits. This monitoring condition shall also satisfy the requirements of 40 CFR 64, CAM.

### Parametric Monitoring

The following requirements shall apply only if the VOC reduction credit for the thermal and/or catalytic incinerators is used to show compliance with Conditions D.2.1, D.2.2, D.3.1, D.3.2, D.4.1, and/or D.4.2:

- (a) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with limits in Conditions D.2.1, D.2.2, D.3.1, D.3.2, D.4.1, and/or D.4.2, as approved by IDEM.
- (b) The duct pressure or fan amperage shall be observed at least once per day when the thermal oxidizer is in operation. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in the most recent compliant stack test.

This monitoring condition is necessary to ensure that the thermal and catalytic oxidizers are working properly when used to demonstrate compliance with the PSD BACT limit and/or the 326 IAC 8-2-2 limits. This monitoring condition shall also satisfy the requirements of 40 CFR 64, CAM.

### Monitoring

- (a) The condition of the Primer Surfacer System (010) and Topcoat System (008) waterwash systems shall be monitored through the use of alarms on the water pumps that feed the systems. Section C - Response to Excursions or Exceedances shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) Monthly inspections shall be performed of the coating emissions from stack 03 and stack 04 and the presence of overspray on the rooftops and nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emission is observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

This monitoring condition is necessary to ensure that the waterwash systems are working properly to demonstrate compliance with 326 IAC 6-3-2. This monitoring condition shall also satisfy the requirements of 40 CFR 64, CAM.

Note: IDEM, OAQ has determined that the potential particulate emissions from the Final Repair Operation (012), based on the current configuration, are sufficiently low as to deem compliance monitoring not necessary for the Final Repair Operation in order to demonstrate compliance with 326 IAC 6-3-2.

### **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 July 18, 2006.

## **Conclusion**

The operation of this stationary automobile and light duty truck assembly plant shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T 003-23379-00036.

**Appendix A: Emission Calculations**  
**Summary Uncontrolled Potential to Emit of Criteria Pollutants**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

Unit	Uncontrolled PTE (ton/yr)					
	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
<b>Emission Units</b>						
Boiler 003 - Natural Gas Alternative	1.90	7.61	0.60	190.22	5.51	84.10
Boiler 003 - No. 2 Fuel Oil Alternative	15.02	7.51	522.45	180.21	1.50	37.54
Boiler 003 - No. 6 Fuel Oil Alternative	54.12	46.17	539.13	329.38	1.96	35.04
Boiler 003 - Landfill Gas Alternative	10.51	10.51	1.26	82.92	5.26	77.79
<b>Boiler 003 - Worst Case</b>	<b>54.12</b>	<b>46.17</b>	<b>539.13</b>	<b>329.38</b>	<b>5.51</b>	<b>84.10</b>
Boiler 004 - Natural Gas Alternative	1.81	7.23	0.57	95.11	5.23	79.89
Boiler 004 - No. 2 Fuel Oil Alternative	13.77	6.88	478.91	68.83	1.38	34.41
<b>Boiler 004 - Worst Case</b>	<b>13.77</b>	<b>7.23</b>	<b>478.91</b>	<b>95.11</b>	<b>5.23</b>	<b>79.89</b>
Boiler 005 - Natural Gas Alternative	1.81	7.23	0.57	95.11	5.23	79.89
Boiler 005 - No. 2 Fuel Oil Alternative	13.77	6.88	478.91	68.83	1.38	34.41
<b>Boiler 005 - Worst Case</b>	<b>13.77</b>	<b>7.23</b>	<b>478.91</b>	<b>95.11</b>	<b>5.23</b>	<b>79.89</b>
007 - Space heaters and process heaters	0.40	1.60	0.13	21.11	1.16	17.73
MOD 1-10 - 20 air supply house burners	2.00	7.99	0.63	105.12	5.78	88.30
006 - ELPO Dipping System	--	--	--	--	356.4	--
006 - Thermal Incineration Natural Gas Combustion	0.40	1.59	0.13	20.86	1.15	17.52
010 - Primer Surfacer System	292.5	292.5	--	--	750.5	--
010 - RTO Natural Gas Combustion	0.13	0.51	0.04	6.67	0.37	5.61
008 - Topcoat System	1180.3	1180.3	--	--	4197.9	--
008 - Catalytic Oxidizer Natural Gas Combustion	0.64	2.57	0.20	33.79	1.86	28.38
009 - Misc. Sealers/Adhesives/Additives	--	--	--	--	454	--
009 - Misc. Solvents	--	--	--	--	431	--
012 - Final Repair Operation	7	7	--	--	17	--
013 - Maintenance Paint Operation	3	3	--	--	11	--
014 - Gasoline Fill Operation	--	--	--	--	9.65	--
<b>Insignificant Activities</b>						
Machining and Grinding	4.51	4.51	--	--	--	--
Storage Tanks (1, 2, 7, 8, 12, 13, 14, 15, and two waste purge solvent tanks)	--	--	--	--	2.12	--
Space Heaters, Process Heaters, Boilers with Natural Gas less than 10 MMBtu/hr	0.08	0.32	0.03	4.17	0.23	3.50
Gasoline Fuel Transfer and Dispensing Operation	--	--	--	--	4.51	--
Emergency Diesel Generator	0.88	0.88	0.82	12.40	1.01	2.67
Emergency Fire Pumps	0.44	0.44	0.41	6.20	0.50	1.34
Vehicle Fluid Fill Operations	--	--	--	--	0.12	--
Other Miscellaneous Insignificant Activities	1.9	1.9	0.1	--	3.1	--
<b>Source Total Uncontrolled PTE (ton/yr):</b>	<b>1576</b>	<b>1566</b>	<b>1499</b>	<b>730</b>	<b>6265</b>	<b>409</b>

**Appendix A: Emission Calculations**  
**Summary Limited Potential to Emit of Criteria Pollutants**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

Unit	Limited PTE (ton/yr)					
	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
Emission Units						
Boiler 003 - Natural Gas Alternative	1.90	7.61	0.60	190.22	5.51	84.10
Boiler 003 - No. 2 Fuel Oil Alternative	15.02	7.51	522.45	180.21	1.50	37.54
Boiler 003 - No. 6 Fuel Oil Alternative	54.12	46.17	539.13	315.36	1.96	35.04
Boiler 003 - Landfill Gas Alternative	10.51	10.51	1.26	82.92	5.26	77.79
<b>Boiler 003 - Worst Case</b>	<b>54.12</b>	<b>46.17</b>	<b>539.1</b>	<b>315.4</b>	<b>5.51</b>	<b>84.10</b>
Boiler 004 - Only Natural Gas Scenario	1.81	7.23	0.57	95.11	5.23	79.89
Boiler 004 - No. 2 Fuel Oil Limit + Remainder Natural Gas Scenario	2.77	7.22	38.80	93.28	4.94	76.48
<b>Boiler 004 - Worst Case</b>	<b>2.77</b>	<b>7.23</b>	<b>38.80</b>	<b>95.11</b>	<b>5.23</b>	<b>79.89</b>
Boiler 005 - Only Natural Gas Scenario	1.81	7.23	0.57	95.11	5.23	79.89
Boiler 005 - No. 2 Fuel Oil Limit + Remainder Natural Gas Scenario	4.60	7.21	111.77	89.78	4.38	69.97
<b>Boiler 005 - Worst Case</b>	<b>4.60</b>	<b>7.23</b>	<b>111.77</b>	<b>95.11</b>	<b>5.23</b>	<b>79.89</b>
007 - Space heaters and process heaters	0.40	1.60	0.13	21.11	1.16	17.73
MOD 1-10 - 20 air supply house burners	0.58	2.32	0.18	30.50	1.68	25.62
006 - Thermal Incineration Natural Gas Combustion	0.40	1.59	0.13	20.86	1.15	17.52
010 - RTO Natural Gas Combustion	0.13	0.51	0.04	6.67	0.37	5.61
008 - Catalytic Oxidizer Natural Gas Combustion	0.64	2.57	0.20	33.79	1.86	28.38
006 - ELPO Dipping System	--	--	--	--	3204	--
010 - Primer Surfacer System	14.63	14.63	--	--		--
008 - Topcoat System	59.01	59.01	--	--		--
009 - Misc. Sealers/Adhesives/Additives	--	--	--	--		--
009 - Misc. Solvents	--	--	--	--		--
012 - Final Repair Operation	0.37	0.37	--	--		--
013 - Maintenance Paint Operation	2.82	2.82	--	--		--
014 - Gasoline Fill Operation	--	--	--	--	9.65	--
Insignificant Activities	7.80	8.04	1.36	22.77	11.58	7.51
<b>Source Total Limited PTE (ton/yr):</b>	<b>148.3</b>	<b>154.1</b>	<b>691.7</b>	<b>641.3</b>	<b>3247.4</b>	<b>346.2</b>

**Appendix A: Emission Calculations**  
**Natural Gas Combustion Only**  
**MMBTU/HR >100**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

			Pollutant					
			PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF			1.9	7.6	0.6	190.0	5.5	84.0
						100.0		
						**see below		
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
Boiler 003 - Alternative Operating Scenario	240	2002.286	1.9	7.6	0.6	190.2	5.5	84.1
Boiler 004 - Alternative Operating Scenario	228	1902.171	1.8	7.2	0.6	95.1	5.2	79.9
Boiler 005 - Alternative Operating Scenario	228	1902.171	1.8	7.2	0.6	95.1	5.2	79.9

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

\*\*Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

			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
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)				
Boiler 003 - Alternative Operating Scenario	240	2002.286	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Boiler 004 - Alternative Operating Scenario	228	1902.171	2.0E-03	1.1E-03	7.1E-02	1.7E+00	3.2E-03
Boiler 005 - Alternative Operating Scenario	228	1902.171	2.0E-03	1.1E-03	7.1E-02	1.7E+00	3.2E-03

			HAPs - Metals					Total HAPs (Organics+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	
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
Boiler 003 - Alternative Operating Scenario	240	2002.286	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	1.9E+00
Boiler 004 - Alternative Operating Scenario	228	1902.171	4.8E-04	1.0E-03	1.3E-03	3.6E-04	2.0E-03	1.8E+00
Boiler 005 - Alternative Operating Scenario	228	1902.171	4.8E-04	1.0E-03	1.3E-03	3.6E-04	2.0E-03	1.8E+00

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Heating Value of Natural Gas = 1050 MMBtu/MMCF

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) \* (8,760 hrs/yr) \* (1 MMCF/1,050 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) \* Emission Factor (lb/MMCF) \*(1 ton/2,000 lb)

**Appendix A: Emission Calculations  
Natural Gas Combustion Only  
MMBTU/HR < 100**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

Emission Factor in lb/MMCF			Pollutant					
			PM*	PM10*	SO2	NOx	VOC	CO
			1.9	7.6	0.6	100.0	5.5	84.0
						**see below		
Emissions Unit	Heat Input Capacity (MMBTu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
007: Various Space Heaters and Process Heaters (56 in total) with combined heat input capacity:	50.6	422.149	0.401	1.604	0.127	21.107	1.161	17.730
MOD 1 - MOD10: Natural gas fired air supply houses - each contain two 12.6 MMBtu/hr burners	252	2102.400	1.997	7.989	0.631	105.120	5.782	88.301
Thermal Incinerators for ELPO Dipping System (006)	50	417.143	0.396	1.585	0.125	20.857	1.147	17.520
RTO for Primer Surfacer System (010)	16	133.486	0.127	0.507	0.040	6.674	0.367	5.606
Catalytic oxidizers for Topcoat system (008) - 10 oxidizers with combined heat input capacity:	81	675.771	0.642	2.568	0.203	33.789	1.858	28.382
Natural Gas Afterburner for Gasoline Fill Operation (014)	0.15	1.251	0.001	0.005	0.000	0.063	0.003	0.053
Insignificant Activities: Space heaters, process heaters, or boilers with heat input capacities ≤ 10 MMBtu/hr	10	83.429	0.079	0.317	0.025	4.171	0.229	3.504

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

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

Emission Factor in lb/MMCF			HAPs - Organics				
			Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
			2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Emissions Unit	Heat Input Capacity (MMBTu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)				
007: Various Space Heaters and Process Heaters (56 in total) with combined heat input capacity:	50.6	422.149	4.4E-04	2.5E-04	1.6E-02	3.8E-01	7.2E-04
MOD 1 - MOD10: Natural gas fired air supply houses - each contain two 12.6 MMBtu/hr burners	252	2102.400	2.2E-03	1.3E-03	7.9E-02	1.9E+00	3.6E-03
Thermal Incinerators for ELPO Dipping System (006)	50	417.143	4.4E-04	2.5E-04	1.6E-02	3.8E-01	7.1E-04
RTO for Primer Surfacer System (010)	16	133.486	1.4E-04	8.0E-05	5.0E-03	1.2E-01	2.3E-04
Catalytic oxidizers for Topcoat system (008) - 10	81	675.771	7.1E-04	4.1E-04	2.5E-02	6.1E-01	1.1E-03
Natural Gas Afterburner for Gasoline Fill Operation	0.15	1.251	1.3E-06	7.5E-07	4.7E-05	1.1E-03	2.1E-06
Insignificant Activities: Space heaters, process	10	83.429	8.8E-05	5.0E-05	3.1E-03	7.5E-02	1.4E-04

Emission Factor in lb/MMCF			HAPs - Metals					Total HAPs (Organics + Metals)
			Lead	Cadmium	Chromium	Manganese	Nickel	
			5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Emissions Unit	Heat Input Capacity (MMBTu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)					
007: Various Space Heaters and Process Heaters (56 in total) with combined heat input capacity:	50.6	422.149	1.1E-04	2.3E-04	3.0E-04	8.0E-05	4.4E-04	4.0E-01
MOD 1 - MOD10: Natural gas fired air supply houses - each contain two 12.6 MMBtu/hr burners	252	2102.400	5.3E-04	1.2E-03	1.5E-03	4.0E-04	2.2E-03	2.0E+00
Thermal Incinerators for ELPO Dipping System (006)	50	417.143	1.0E-04	2.3E-04	2.9E-04	7.9E-05	4.4E-04	3.9E-01
RTO for Primer Surfacer System (010)	16	133.486	3.3E-05	7.3E-05	9.3E-05	2.5E-05	1.4E-04	1.3E-01
Catalytic oxidizers for Topcoat system (008) - 10	81	675.771	1.7E-04	3.7E-04	4.7E-04	1.3E-04	7.1E-04	6.4E-01
Natural Gas Afterburner for Gasoline Fill Operation	0.15	1.251	3.1E-07	6.9E-07	8.8E-07	2.4E-07	1.3E-06	1.2E-03
Insignificant Activities: Space heaters, process	10	83.429	2.1E-05	4.6E-05	5.8E-05	1.6E-05	8.8E-05	7.9E-02

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

All emission factors are based on normal firing.

MMBTu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Heating Value of Natural Gas = 1050 MMBtu/MMCF

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBTu/hr) \* (8,760 hrs/yr) \* (1 MMCF/1,050 MMBtu)

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

Potential Emission (tons/yr) = Throughput (MMCF/yr) \* Emission Factor (lb/MMCF) \* (1 ton/2,000 lb)

**Appendix A: Emission Calculations**  
**No. 2 Fuel Oil Combustion**  
**Industrial Boilers (> 100 MMBtu/hr)**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

S = Weight % Sulfur

0.49

Emission Factor in lb/kgal			Pollutant					
			PM*	PM10*	SO2	NOx	VOC	CO
			2.0	1.0	69.6	24.0	0.2	5.0
					142S	10.0		
						**See below		
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (kgal/yr)	Unlimited Potential Emission (tons/yr)					
Boiler 003 - Alternative Operating Scenario	240	15017.143	15.0	7.5	522.4	180.2	1.5	37.5
Boiler 004 - Alternative Operating Scenario	220	13765.714	13.8	6.9	478.9	68.8	1.4	34.4
Boiler 005 - Alternative Operating Scenario	220	13765.714	13.8	6.9	478.9	68.8	1.4	34.4

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, 1.3-3, 1.3-6 (SCC 1-02-005-01/02/03) Supplement E 9/98

\*PM and PM10 emission factors are filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

\*\*Emission Factors for NOx: Uncontrolled = 24, Low-NOx Burners/Flue Gas Recirculation = 10

**Methodology**

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) \* (8,760 hrs/yr) \* (1kgal/1000 gallon) \* (1 gal/0.140 MMBtu)

Emission (tons/yr) = Throughput (kgals/yr) \* Emission Factor (lb/kgal) \* (1 ton/2,000 lb)

Emission Factor in lb/MMBtu		HAPs - Metals				
		Arsenic	Beryllium	Cadmium	Chromium	Lead
		4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Emissions (tons/yr)				
Boiler 003 - Alternative Operating Scenario	240	4.2E-03	3.2E-03	3.2E-03	3.2E-03	9.5E-03
Boiler 004 - Alternative Operating Scenario	220	3.9E-03	2.9E-03	2.9E-03	2.9E-03	8.7E-03
Boiler 005 - Alternative Operating Scenario	220	3.9E-03	2.9E-03	2.9E-03	2.9E-03	8.7E-03

Emission Factor in lb/MMBtu		HAPs - Metals (Continued)				Total Metal HAPs
		Mercury	Manganese	Nickel	Selenium	
		3.0E-06	6.0E-06	3.0E-06	1.5E-05	
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Emissions (tons/yr)				
Boiler 003 - Alternative Operating Scenario	240	3.2E-03	6.3E-03	3.2E-03	1.6E-02	5.2E-02
Boiler 004 - Alternative Operating Scenario	228	3.0E-03	6.0E-03	3.0E-03	1.5E-02	4.8E-02
Boiler 005 - Alternative Operating Scenario	228	3.0E-03	6.0E-03	3.0E-03	1.5E-02	4.8E-02

Emission Factors are from AP 42, Table 1.3-10 (SCC 1-01-005-01, 1-02-005-01, 1-03-005-01) Supplement E 9/98

No data was available in AP-42 for organic HAPs.

**Methodology**

Potential Emissions (tons/year) = Throughput (MMBtu/hr) \* Emission Factor (lb/mmBtu) \* (8,760 hrs/yr) \* (1 ton/2,000 lb)

**Appendix A: Emission Calculations**  
**No. 6 Fuel Oil Combustion**  
**Industrial Boilers (> 100 MMBtu/hr)**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

S = Weight % Sulfur

0.49

Emission Factor in lb/kgal			Pollutant					
			PM***	PM10**	SO2	NOx	VOC	CO
			7.7	6.6	76.9	47.0	0.28	5.0
					157S			
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (kgal/yr)	Potential Emissions (tons/yr)					
Boiler 003 - Alternative Operating Scenario	240	14016.000	54.1	46.2	539.1	329.4	2.0	35.0

\*Particulate Matter emission factor for #6 fuel oil 9.19(s) + 3.22 lb/kgal.

\*\* PM and PM10 emission factors are filterable PM only. Condensable PM emission factor is 1.5 lb/kgal.

Filterable PM10 = 7.17A, A = 1.12(S) + 0.37

Emission Factors are from AP42 Tables 1.3-1, 1.3-2 1.3-3, and 1.3-5 (SCC 1-01-004-01/02/03, 1-01-004-05, 1-02-004-01/02/03/04, and 1-02-005-04) Supplement E 9/98

Normal Firing Emission Factors were used.

Emission Factor in lb/kgal			HAPs - Organics				
			Benzene	Formaldehyde	Naphthalene	Toluene	Xylene
			2.1E-04	3.3E-02	1.1E-03	6.2E-03	1.1E-04
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (kgal/yr)	Potential Emissions (tons/yr)				
Boiler 003 - Alternative Operating Scenario	240	14016.000	1.5E-03	2.3E-01	7.9E-03	4.3E-02	7.6E-04

Emission Factor in lb/kgal			HAPs - Metals					Total HAPs
			Antimony	Cobalt	Lead	Manganese	Nickel	
			5.3E-03	6.0E-03	1.5E-03	3.0E-03	8.5E-02	
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (kgal/yr)	Potential Emissions (tons/yr)					(Organics + Metals)
Boiler 003 - Alternative Operating Scenario	240	14016.000	3.7E-02	4.2E-02	1.1E-02	2.1E-02	5.9E-01	9.9E-01

Emission Factors are from AP 42, Tables 1.3-9 and 1.3-11 (SCCs 1-01-004-01/04) Supplement E 9/98

The five highest organic and metal HAPs emission factors are provided above. Additional emission factors are available in Tables 1.2-9 and 1.3-11.

**Methodology**

1 gallon of #6 Fuel oil has a heating value of 150,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) \* (8,760 hrs/yr) \* (1 gal/1000 gallon) \* (1 gal/0.150 MMBtu)

Emission (tons/yr) = Throughput (kgals/yr) \* Emission Factor (lb/kgal) \* (1 ton/2,000 lb)

**Appendix A: Emission Calculations  
Landfill Gas Combustion  
Boilers**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

Landfill Gas Throughput (MMCF/yr):

**4204.8**

	Criteria Pollutant					
	PM*	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
Emission Factor (lb/MMCF)	5.0	5.0	0.6	39.4	2.50	37.0
Emissions Unit	Potential Emissions (tons/yr)					
Boiler 003 - Alternative Operating Scenario - Landfill Gas	10.5	10.5	1.3	82.9	5.3	77.8

**Methodology**

- PM emissions are assumed to equal PM10 emissions.
- Emission Factors are from vendor (Peabody) estimates for landfill gas burner.
- Potential Throughput (MMCF/yr) is based on capacity of burner installed to handle landfill gas through Administrative Amendment No. 003-26644-00036, issued on July 31, 2008.
- Potential Emissions (tons/yr) = Flow Rate (MMCF/yr) \* Emission Factor (lb/MMCF) \* (1 ton / 2000 lb)

**HAPs Emissions from Landfill Gas Combustion in a Boiler (Boiler 003 - Alternative Operating Scenario - Landfill Gas)**

HAP	CAS	Molecular Weight (lb/lb-mol)	Default Concentration (ppmv)	Uncontrolled Emission Rate (lb/MMCF)	Uncontrolled HAPs Emissions (Entering the Boiler) (tons/yr)	Destruction Efficiency (%)	Controlled HAPs Emissions (Exiting the Boiler) (tons/yr)
1,1,1-Trichloroethane	71-55-6	133.41	0.48	0.16609	0.3492	87.0%	0.0454
1,1,2,2-Tetrachloroethane	79-34-5	167.85	1.11	0.48325	1.0160	87.0%	0.1321
1,1-Dichloroethane	75-34-3	98.97	2.35	0.60325	1.2683	87.0%	0.1649
1,1-Dichloroethene	75-35-4	96.94	0.2	0.05029	0.1057	87.0%	0.0137
1,2-Dichloroethane	107-06-2	98.96	0.41	0.10524	0.2212	87.0%	0.0288
1,2-Dichloropropane	78-87-5	112.99	0.18	0.05275	0.1109	87.0%	0.0144
Acrylonitrile	107-13-1	53.06	6.33	0.87115	1.8315	67.0%	0.6044
Carbon Disulfide	75-15-0	76.13	0.58	0.11453	0.2408	67.0%	0.0795
Carbon tetrachloride	56-23-5	153.84	0.004	0.00160	0.0034	87.0%	0.0004
Carbonyl sulfide	463-58-1	60.07	0.49	0.07634	0.1605	67.0%	0.0530
Chlorobenzene	108-90-7	112.56	0.25	0.07299	0.1534	87.0%	0.0199
Chloroethane	75-00-3	64.52	1.25	0.20918	0.4398	87.0%	0.0572
Chloroform	67-66-3	119.39	0.03	0.00929	0.0195	87.0%	0.0025
Dichlorobenzene	25321-22-6	147	0.21	0.08007	0.1683	87.0%	0.0219
Ethylbenzene	100-41-4	106.16	4.61	1.26936	2.6687	67.0%	0.8807
Hexane	110-54-3	86.18	6.57	1.46857	3.0875	67.0%	1.0189
Hydrogen Chloride	7647-01-0	36.5	42	3.97618	8.3595	87.0%	1.0867
Mercury	7439-97-6	200.61	0.000292	0.00015	0.0003	0.0%	0.0003
Methyl isobutyl ketone	108-10-1	100.16	1.87	0.48580	1.0214	67.0%	0.3370
Methylene Chloride	75-09-2	84.94	14.3	3.15045	6.6235	87.0%	0.8611
Tetrachloroethylene	127-18-4	165.83	3.73	1.60434	3.3730	87.0%	0.4385
Trichloroethene	79-01-6	131.4	2.82	0.96110	2.0206	87.0%	0.2627
Vinyl chloride	75-01-4	62.5	7.34	1.18987	2.5016	87.0%	0.3252
Xylenes	1330-20-7	106.16	12.1	3.33174	7.0046	67.0%	2.3115
<b>Total HAPs</b>							<b>8.7607</b>

**Methodology**

- Uncontrolled Emission Rate (lb/MMCF) = [Default Concentration (cf/MMCF)] \* [Molecular Weight (lb/lb-mol)] \* [1/Gas Constant (0.7302 cf-atm/lb-mole-R)] \* [Pressure (1 atm)] \* [1/Temperature (528 R)]
- Normal Temperature and Pressure are assumed
- Landfill Gas HAPs (default concentrations from AP-42 Table 2.4-1, 11/98 (SCCs 5-01-004-02, 5-03-006-03))
- Uncontrolled HAPs Emissions (tons/yr) = HAPs Entering the Boiler = Landfill Gas Throughput (MMCF/yr) \* Uncontrolled Emission Rate (lb/MMCF) \* (1 - Destruction Efficiency)
- Controlled HAPs Emissions (tons/yr) = HAPs Emissions Exiting the Boiler = Uncontrolled HAPs Emissions (tons/yr) \* (1 - Destruction Efficiency)
- Destruction Efficiencies are from Table 2.4-3 in AP-42 for boilers/steam turbines. The lower end of the control efficiency range was used (67% for non-halogenated species and 87% for halogenated species. The destruction efficiency for mercury was assumed to be 0.

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

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

Process/Material	V <sub>c</sub> (lb VOC/gal coating, less water)	S <sub>c</sub> (gal solids/gal coating)	A <sub>v</sub> (ft <sup>2</sup> /vehicle)	T <sub>f</sub> (mil)	e <sub>T</sub> (fraction of total coating solids used that remains on coated parts)	E <sub>v</sub> (lb VOC/vehicle)	Maximum Production Rate (vehicles/hr)	PTE VOC (lb/hr)	PTE VOC (ton/yr)	Thermal Incinerator Overall Control Efficiency	Controlled PTE VOC (ton/yr)
<b>ELPO Dipping System (006)</b>											
ELPO	0.741	0.9068	1270	1.70	1.0	1.10	74	81.38	356.4	0.57	153.27

**Methodology**

V<sub>c</sub> = VOC content of coating as applied, less water (lb VOC/gal coating, less water) - value provided by Permittee

S<sub>c</sub> = Solids in coating as applied (gal solids/gal coating) - value provided by Permittee

A<sub>v</sub> = Area coated per vehicle (ft<sup>2</sup>/vehicle) - value provided by Permittee

T<sub>f</sub> = Thickness of the dry coating film (mil) - value provided by Permittee

e<sub>T</sub> = Transfer efficiency fraction (fraction of total coating solids used that remains on coated parts) - value provided by Permittee

E<sub>v</sub> = Emission Factor for VOC (lb VOC/vehicle)

Per AP-42, Chapter 4, Section 4.2.2.8, Automobile and Light Duty Truck Surface Coating Operations (8/82), the VOC emission factor may be determined by the equation below:

$$E_v = \frac{A_v \cdot T_f \cdot (1 \text{ ft} / 12,000 \text{ mil}) \cdot (7.48 \text{ gal} / \text{ft}^3) \cdot V_c}{S_c \cdot e_T}$$

Potential VOC (lb/hr) = E<sub>v</sub> (lb VOC/vehicle) \* Production Rate (vehicles/hr)

Potential VOC (ton/yr) = Potential VOC (lb/hr) \* (8760 hr/yr) \* (1 ton/2000 lb)

Thermal Incinerator Overall Control Efficiency = Capture Efficiency (60%) \* Destruction Efficiency (95%) - values submitted by Permittee

Controlled PTE VOC (ton/yr) = PTE VOC (ton/yr) \* (1 - Capture and Destruction Efficiency)

Process/Material	Density (lb/gal)	Weight % Volatile (H <sub>2</sub> O & Organics)	Gal of Mat. (gal/unit)	Maximum Production Rate (unit/hour)	Pounds VOC per gallon of coating	PTE VOC (lb/hr)	PTE VOC (ton/yr)	PTE PM/PM <sub>10</sub> (ton/yr)	Transfer Efficiency	VOC/PM Control	Overall VOC Control Efficiency	Controlled PTE VOC (ton/yr)	PM Control Efficiency	Controlled PTE PM (ton/yr)
<b>Primer Surfacer System (010)</b>														
Primer	9.68	43.49%	0.55000	74.000	4.21	171.35	750.50	292.54	70%	RTO/Waterwash	76.13%	179.14	95%	14.63
<b>Top Coat System (008)</b>														
Base Coat	7.68	61.20%	1.11800	74.000	4.70	388.84	1703.12	421.12	61%	Catalytic Oxidizer/Waterwash	14%	1471.50	95%	21.06
Clear Coat	7.7	56.20%	1.79000	74.000	4.30	569.58	2494.75	759.15	61%	Catalytic Oxidizer/Waterwash	14%	2155.47	95%	37.96
						4198	1180					3627		59.01

**METHODOLOGY**

The following values were provided by the Permittee: density, weight% volatile, gal of mat., maximum production rate, pounds of VOC per gallon of coating, and transfer efficiency.

PTE VOC (lb/hr) = Maximum Production Rate (unit/hr) \* Gal of Mat. (gal/unit) \* (lb VOC/gal coating)

PTE VOC (ton/yr) = PTE VOC (lb/hr) \* (8760 hr/yr) \* (1 ton/2000 lb)

PTE PM/PM<sub>10</sub> (ton/yr) = Maximum Production Rate (unit/hr) \* Gal of Mat. (gal/unit) \* Density (lb/gal) \* (1 - Wt.% Volatiles) \* (1 - Transfer efficiency) \* (8760 hr/yr) \* (1 ton/2000 lb)

Overall VOC Control Efficiency - value provided by Permittee

**Appendix A: Emission Calculations  
Emergency Diesel Equipment**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

		Pollutant					
		PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
Emission Factor in lb/hp-hr		0.0022	0.0022	0.00205	0.031	0.002514	0.00668
Emissions Unit	Power Output (hp)	Potential to Emit (ton/yr)					
Emergency Diesel Generator	1600	0.9	0.9	0.8	12.4	1.0	2.7
Emergency Fire Pumps (assume 2 @ 400 hp each)	800	0.4	0.4	0.4	6.2	0.5	1.3

**Methodology**

Emission Factors are from AP 42, Table 3.3-1 for Uncontrolled Diesel Industrial Engines (SCC #2-02-001-02, 2-03-001-01)

PM emissions are assumed to equal PM<sub>10</sub>

emissions

Emergency Equipment have an assumed usage of 500 hours per year

$$PTE \text{ (ton/yr)} = \text{Power Output (hp)} * \text{Emission Factor (lb/hp-hr)} * (500 \text{ hr/yr}) * (1 \text{ ton}/2000 \text{ lb})$$

		HAPs								Total HAPs
		Benzene	Toluene	Xylenes	1,3-Butadiene	Formaldehyde	Acetaldehyde	Acrolein	Naphthalene	
Emission Factor in lb/MMBtu		9.3E-04	4.1E-04	2.9E-04	3.9E-05	1.2E-03	7.7E-04	9.3E-05	8.5E-05	
Emissions Unit	Power Output (hp)	Potential to Emit (ton/yr)								
Emergency Diesel Generator	1600	9.5E-04	4.2E-04	2.9E-04	4.0E-05	1.2E-03	7.8E-04	9.4E-05	8.6E-05	3.9E-03
Emergency Fire Pumps (assume 2 @ 400 hp each)	800	4.7E-04	2.1E-04	1.4E-04	2.0E-05	6.0E-04	3.9E-04	4.7E-05	4.3E-05	1.9E-03

**Methodology**

Emission Factors are from AP 42, Tables 3.3-2 for Uncontrolled Diesel Engines (SCC #2-02-001-02, 2-03-001-01)

Emergency Equipment have an assumed usage of 500 hours per year

$$PTE \text{ (ton/yr)} = \text{Power Output (hp)} * \text{Emission Factor (lb/MMBtu)} * (2.5425 \times 10^3 \text{ Btu/hp-hr}) * (1 \text{ MMBtu}/10^6 \text{ Btu}) * (500 \text{ hr/yr}) * (1 \text{ ton}/2000 \text{ lb})$$

**Appendix A: Emission Calculations  
Other Coating and Cleaning Operations**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

**Maximum Vehicle Capacity/hr:** 74

	VOC Content (lb/gal)	Maximum Use	Units of Maximum Use	PTE VOC (ton/yr)	Transfer Efficiency	PM/PM10 Emission Factor (lb solids/gallon)	PTE PM/PM10 (ton/yr)
<b>Misc sealers / adhesives / additives / solvents</b>							
Misc. Sealers/Adhesives/Additives (009)	1	1.4	gal/vehicle	454			
Miscellaneous Solvents (009)	6.5	11046	gal/month	431			
<b>Final Repair Operations</b>							
Final Repair Operation (012)	3.8	740	gal/month	17	50%	3.36	7.45
<b>Maintenance Paint</b>							
Maintenance Paint Operation (013)	6.5	280	gal/month	11	50%	3.36	2.82

**Methodology**

VOC Content and Maximum Use for Misc. Sealers/Adhesives/Additives, Misc. Solvents, Final Repair Operation, and Maintenance Paint Operation provided by the Permittee  
 PM/PM10 Emission Factor for Final Repair Operations and Maintenance Paint Operation is based on Topcoat density and % Solids.

PTE VOC (ton/yr) = VOC Content (lb/gal) \* Maximum Use (gal/vehicle) \* Maximum Vehicle Capacity (vehicles/hr) \* (8760 hr/yr) \* (1 ton/2000 lb)  
 or PTE VOC (ton/yr) = VOC Content (lb/gal) \* Maximum Use (gal/month) \* (12 month/yr) \* (1 ton/2000 lb)

**Appendix A: Emission Calculations  
Gasoline Operations**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

**Gasoline Fill operation (014)**

	Tank Capacity (gal)	Maximum True Vapor Pressure (psia)	VOC Emission Factor (lb/1000 gal)	Maximum Use (gal/hr)	PTE VOC (ton/yr)	Max Wt% Benzene	Max Wt% Ethylbenzene	Max Wt% Xylene	Max Wt% Toluene	PTE Benzene (ton/yr)	PTE Ethylbenzene (ton/yr)	PTE Xylene (ton/yr)	PTE Toluene (ton/yr)
Storage Tank 9	20000	6.34		370	4.26	2.0%	2.0%	10.0%	5.0%	0.085	0.085	0.426	0.213
Storage Tank 10	20000	6.34		370	4.26	2.0%	2.0%	10.0%	5.0%	0.085	0.085	0.426	0.213
Vehicle Refueling Spillage Losses	N/A	N/A	0.7	370	1.13	2.0%	2.0%	10.0%	5.0%	0.023	0.023	0.113	0.057
Total					9.65					0.193	0.193	0.965	0.483

Vapor Recovery System at 90%

**Methodology**

PTE VOC (ton/yr) for Storage Tanks is based on EPA TANKS calculations provided by the Permittee for working and standing losses.

VOC Emission Factors for Vehicle Refueling Spillage Losses is from AP-42, Table 5.2-7.

Wt% HAPs provided by the Permittee

PTE VOC (ton/yr) = [VOC Emission Factor (lb/1000 gal)/1000 gal] \* Maximum Use (gal/hr) \* (8760 hr/yr) \* (1 ton /2000 lb)

PTE HAP (ton/yr) = PTE VOC (ton/yr) \* Wt% HAP

**A.3(d) Gasoline Fuel Transfer and Dispensing Operation**

	Tank Capacity (gal)	Maximum True Vapor Pressure (psia)	Throughput (gallon/day)	VOC Emission Factor (lb/1000 gal)	Total Uncontrolled VOC Loss (ton/yr)	Max Wt% Benzene	Max Wt% Ethylbenzene	Max Wt% Xylene	Max Wt% Toluene	PTE Benzene (ton/yr)	PTE Ethylbenzene (ton/yr)	PTE Xylene (ton/yr)	PTE Toluene (ton/yr)
Submerged Filling	10500	6.34	1300	7.3	1.73	2.0%	2.0%	10.0%	5.0%	0.035	0.035	0.173	0.087
Vehicle Refueling Displacement Loss	10500	6.34	1300	11	2.61	2.0%	2.0%	10.0%	5.0%	0.052	0.052	0.261	0.130
Vehicle Refueling Spillage Loss	10500	6.34	1300	0.7	0.17	2.0%	2.0%	10.0%	5.0%	0.003	0.003	0.017	0.008
Total					4.51					0.09	0.09	0.45	0.23

**Methodology**

VOC Emission Factors for Submerged Filling, Vehicle Refueling Displacement Loss, and Vehicle Refueling Spillage Loss are from AP-42, Table 5.2-7.

PTE VOC (ton/yr) = [VOC Emission Factor (lb/1000 gal)/1000 gal] \* Maximum Use (gal/hr) \* (8760 hr/yr) \* (1 ton /2000 lb)

Wt% HAPs provided by the Permittee

PTE HAP (ton/yr) = PTE VOC (ton/yr) \* Wt% HAP

**Appendix A: Emission Calculations  
Storage Tanks**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

**A.3(b) & A.3(u)(10) Storage Tanks**

	Tank Capacity (gal)	Maximum True Vapor Pressure (psia)	PTE VOC (ton/yr)	Max Wt% Ethylbenzene	Max Wt% Xylene	Max Wt% MIBK	Max Wt% Methanol	PTE Ethylbenzene (ton/yr)	PTE Xylene (ton/yr)	PTE MIBK (ton/yr)	PTE Methanol (ton/yr)
1 - Solvent/Thinner	20000	1.58	0.421	10.0%	40.0%	58.6%		0.04	0.17	0.25	
2 - Solvent/Thinner	20000	1.58	0.421	10.0%	40.0%	58.6%		0.04	0.17	0.25	
3 - Windshield Wiper Fluid	10000	1.27	0.109				99.0%				0.11
6 - Power Steering Fluid	16000	0.004	0.001								
7 - Automatic Transmission Fluid	16000	0.000186	0.0001								
8 - Reclaimed Solvent	20000	1.58	0.421	10.0%	40.0%	58.6%		0.04	0.17	0.25	
12 - Fuel Oil	25000	0.0057	0.004								
13 - Fuel Oil	25000	0.0057	0.004								
14 - Fuel Oil	25000	0.0057	0.004								
15 - Fuel Oil	25000	0.0057	0.004								
16 - Antifreeze Coolant	16000	0.00199	0.0011								
18 - Axle Lube	16000	0.0073	0.004								
Waste Purge Solvent Tank	18900	1.58	0.421	10.0%	40.0%	58.6%		0.04	0.17	0.25	
Waste Purge Solvent Tank	18900	1.58	0.421	10.0%	40.0%	58.6%		0.04	0.17	0.25	
<b>Total</b>			2.24					0.2	0.8	1.2	0.1

**Methodology**

PTE VOC (ton/yr) is based on EPA TANKS calculations provided by the Permittee.

**Appendix A: Emission Calculations  
Miscellaneous Emissions**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
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**A.3(a) Grinding and Machining Operations**

	Grain Loading (gr/dscf)	Flow Rate (acfm)	PM/PM10 (ton/yr)
Grinding and Machining Operations	0.03	4000	4.51

(small maintenance operations throughout the plant)

**Methodology**

PTE PM/PM10 (ton/yr) = Grain Loading (gr/dsf) \* Airflow (acfm) \* (60 min/hr) \* (8760 hr/yr) \* (1 lb/7000 gr) \* (1 ton/2000 lb)

**Other Insignificant Activities - Estimated PTE**

	PTE (ton/yr)						
	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	HAP
(e) VOC and HAP Storage Containers					1		1
(f) Brazing equipment, cutting torches, soldering equipment, welding equipment	1	1					
(h) Treatment of wastewater					0.5		
(i) Operations using aqueous solutions containing less than 1% VOC by weight, excluding HAPs					0.5		
(j) Noncontact Cooling Tower Systems					0.5		
(k) Replacement or repair of ESPs, baghouse bags, and air filters	0.1	0.1					
(l) Trimmers	0.5	0.5					
(n) Equipment used to collect released material during malfunction, spills, etc.					0.5		0.5
(u)(2) Sulfuric Acid Tank			0.1				
(u)(3) Grinding Operations	0.1	0.1					
(u)(8) Spot sanding and painting	0.1	0.1			0.1		
(u)(21) MIG Welding	0.1	0.1					
<b>Total</b>	<b>1.9</b>	<b>1.9</b>	<b>0.1</b>	<b>0</b>	<b>3.1</b>	<b>0</b>	<b>1.5</b>

**Appendix A: Emission Calculations**  
**Boiler 004 Limited PTE**  
**MMBTU/HR >100**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

S = Weight % Sulfur

0.49

**No. 2 Fuel Oil Combustion**

		Pollutant					
		PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/kgal		2.0	1.0	69.6	10.0	0.2	5.0
				142S			
Emissions Unit	Limited Throughput (kgal/yr)	Potential to Emit (tons/yr)					
Boiler 004 - Limited No. 2 Fuel Oil	1100.000	1.10	0.55	38.27	5.50	0.11	2.75

See p. 5 for source of emission factors and emission calculations.

Pursuant to CP (003) 2000, issued on September 9, 1991, No. 2 fuel oil usage for Boiler 004 shall not exceed 1.1 million gallons per 12 consecutive month period and the

**Natural Gas Combustion**

			Pollutant					
			PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF			1.9	7.6	0.6	100.0	5.5	84.0
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential to Emit (tons/yr)					
Boiler 004 - Only Natural Gas Combustion	228	1902.171	1.8	7.2	0.6	95.1	5.2	79.9
Boiler 004 - Natural Gas Combustion Potential in Conjunction with No. 2 Fuel Oil Limit	210.4	1755.505	1.7	6.7	0.5	87.8	4.8	73.7

See p. 3 for source of emission factors and emission calculations.

Heat Input Capacity (MMBtu/hr) for Natural Gas Combustion Potential in Conjunction with No. 2 Fuel Oil Limit = Total Boiler Heat Input Capacity - Heat Input Capacity used for Combusting the Limited Amount of No. 2 Fuel Oil = 228 MMBtu/hr - [(1100 kgal/yr) \* (1 yr/8760 hr) \* (140 MMBtu/kgal)]

The worst case scenario of emissions from Boiler 004 would either be from combusting natural gas alone (up to the full heat input capacity of the boiler) or combusting No. 2 fuel oil up to the limited amount and combusting natural gas for the remainder of the boiler's capacity.

	PM	PM10	SO2	NOx	VOC	CO
Scenario 1: 100% NG Combustion	1.81	7.23	0.57	95.11	5.23	79.89
Scenario 2: No. 2 FO Combustion + NG Combustion	2.77	7.22	38.80	93.28	4.94	76.48
Worst Case	2.77	7.23	38.80	95.11	5.23	79.89

**Appendix A: Emission Calculations**  
**Boiler 005 Limited PTE**  
**MMBTU/HR >100**

**Company Name:** General Motors Corporation - Truck Group  
**Address City IN Zip:** 12200 LaFayette Center Road, Roanoke, IN 46783  
**Part 70 Operating Permit Renewal No.:** 003-23379-00036  
**Reviewer:** Laura Spriggs  
**Date:** August 25, 2008

S = Weight % Sulfur

0.49

**No. 2 Fuel Oil Combustion**

		Pollutant					
		PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/kgal		2.0	1.0	69.6	10.0	0.2	5.0
				142S			
Emissions Unit	Limited Throughput (kgal/yr)	Potential to Emit (tons/yr)					
Boiler 005 - Limited No. 2 Fuel Oil	3200.000	3.20	1.60	111.33	16.00	0.32	8.00

See p. 5 for source of emission factors and emission calculations.

Pursuant to CP (003) 2524, issued on October 13, 1992, No. 2 fuel oil usage for Boiler 005 shall not exceed 3.2 million gallons per 12 consecutive month period and the fu

**Natural Gas Combustion**

			Pollutant					
			PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF			1.9	7.6	0.6	100.0	5.5	84.0
Emissions Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential to Emit (tons/yr)					
Boiler 005 - Only Natural Gas Combustion	228	1902.171	1.8	7.2	0.6	95.1	5.2	79.9
Boiler 005 - Natural Gas Combustion Potential in Conjunction with No. 2 Fuel Oil Limit	176.9	1475.505	1.4	5.6	0.4	73.8	4.1	62.0

See p. 3 for source of emission factors and emission calculations.

Heat Input Capacity (MMBtu/hr) for Natural Gas Combustion Potential in Conjunction with No. 2 Fuel Oil Limit = Total Boiler Heat Input Capacity - Heat Input Capacity used for Combusting the Limited Amount of No. 2 Fuel Oil = 228 MMBtu/hr - [(1100 kgal/yr) \* (1 yr/8760 hr) \* (140 MMBtu/kgal)]

The worst case scenario of emissions from Boiler 005 would either be from combusting natural gas alone (up to the full heat input capacity of the boiler) or combusting No. 2 fuel oil up to the limited amount and combusting natural gas for the remainder of the boiler's capacity.

	PM	PM10	SO2	NOx	VOC	CO
Scenario 1: 100% NG Combustion	1.81	7.23	0.57	95.11	5.23	79.89
Scenario 2: No. 2 FO Combustion + NG Combustion	4.60	7.21	111.77	89.78	4.38	69.97
Worst Case	4.60	7.23	111.77	95.11	5.23	79.89

Note: A netting analysis was conducted in CP (003) 2524 to ensure that the net emissions increases from Boiler 005 are less than the PSD significant levels for major modifications.