



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant

DATE: March 11, 2011

RE: Fairfield Manufacturing Company, Inc. / 157-28863-00007

FROM: Matthew Stuckey, 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 according to IC 13-15-6-3, 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 and IC 13-15-6-1 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, **within eighteen (18) calendar days of the mailing of this notice**. 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.

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.

Enclosures  
FNPER.dot12/03/07



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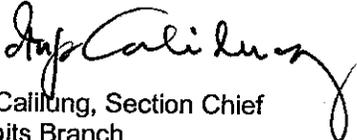
## New Source Construction and Minor Source Operating Permit OFFICE OF AIR QUALITY

**Fairfield Manufacturing Company, Inc.**  
**2309 Concord Road**  
**Lafayette, Indiana 47903**

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

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted 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 MSOP under 326 IAC 2-6.1.

Operation Permit No.: M157-28863-00007	
Issued by:  Iryn Caillung, Section Chief Permits Branch Office of Air Quality	Issuance Date: March 11, 2011 Expiration Date: March 11, 2016

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Combustion Engines)**

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

### A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

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The Permittee owns and operates a stationary custom manufacturing steel gears and gear assemblies to specifications.

Source Address:	2309 Concord Road, Lafayette, Indiana 47903
General Source Phone Number:	765-772-4000
SIC Code:	3566
County Location:	Tippecanoe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary

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

#### (a) Paint Booths:

- (1) One (1) large spray paint booth, identified as EUP-1, constructed in 1997, equipped with two HVLP spray guns, maximum capacity of painting 40 steel gear housings per hour, controlled with a dry filter which exhausts to stack P-1, and a process throughput of 12,000 lbs/hr of metal containers.
- (2) One (1) small spray paint booth, identified as EUP-2, constructed in 1997, equipped with one HVLP spray gun, maximum capacity of painting 2 steel gear housing per hour, controlled with a dry filter which exhausts to stack P-2, and a process throughput of 2,000 lbs/hr of metal gears.

#### (b) Twelve (12) Shot Blasters:

- (1) One (1) wheelabrator shot blast operation, identified as EUSB1, constructed in 1964, equipped with a dust collector, DCSB1 for particulate control, with a maximum process throughput of 1,800 lbs per hour, and media 94,860 lbs/hr, exhausting through stack SSB1, combined throughput is equivalent to 48.33 tons per hour.
- (2) One (1) wheelabrator shot blast operation, identified as EUSB2, constructed in 1967, equipped with a dust collector, DCSB2 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 75,180 lbs/hr, exhausting through stack SSB2.
- (3) One (1) wheelabrator shot blast operation, identified as EUSB3, constructed in 1971, equipped with a dust collector, DCSB3 for particulate control, with a maximum process throughput of 2,400 lbs per hour, and media 123,660 lbs/hr, exhausting through stack SSB3.

- (4) One (1) wheelabrator shot blast operation, identified as EUSB4, constructed in 1974, equipped with a dust collector, DCSB4 for particulate control, with a maximum process throughput of 2,200 lbs per hour, and media 145,260 lbs/hr, exhausting through stack SSB4.
  - (5) One (1) wheelabrator shot blast operation, identified as EUSB5, constructed in 1978, equipped with a dust collector, DCSB5 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 215,160 lbs/hr, exhausting through stack SSB5.
  - (6) One (1) wheelabrator shot blast operation, identified as EUSB6, constructed in 1978, equipped with a dust collector, DCSB6 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 79,740 lbs/hr, exhausting through stack SSB6.
  - (7) One (1) wheelabrator shot blast operation, identified as EUSB7, constructed in 1982, equipped with a dust collector, DCSB7 for particulate control, with a maximum process throughput of 1,800 lbs per hour, and media 245,820 lbs/hr, exhausting through stack SSB7.
  - (8) One (1) wheelabrator shot blast operation, identified as EUSB8a, constructed in 1992, equipped with a dust collector, DCSB8 for particulate control, with a maximum process throughput of 1,800 lbs per hour, and media 75,180 lbs/hr, exhausting through stack SSB8.
  - (9) One (1) BCast cleaning shot blast operation, identified as EUSB8b, constructed in 1967, equipped with a dust collector, DCSB8 for particulate control, with a maximum process throughput of 1,250 lbs per hour, and media 43,260 lbs/hr, exhausting through stack SSB8.
  - (10) One (1) wheelabrator shot blast operation, identified as EUSB9, constructed in 2005, equipped with a dust collector, DCSB9 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 213,480 lbs/hr, exhausting through stack SSB9.
  - (11) One (1) swing table, identified as EUSB10, constructed in 1999, equipped with a dust collector, DCSB10 for particulate control, with a maximum process throughput of 1,600 lbs per hour, and media 80,820 lbs/hr, exhausting inside.
  - (12) One (1) blast belt operation, identified as EUSB11, constructed in 1999, equipped with a dust collector, DCS11 for particulate control, with a maximum process throughput of 2,600 lbs per hour, and media 106,020 lbs/hr, exhausting through stack SSB11.
- (c) Two (2) glass bead polishing and bead cleaning operations, collectively identified as EUPB1, constructed in 1995, comprised of two glass bead machines with maximum capacity of 60 lbs of metal gear assembly per hour each, and bead media 8658 lbs/hr each, with particulate controlled by dust collector, exhausting internally.
  - (d) Two (2) polish lathes and grinding and drilling operation to polish gear assembly using sand paper, collectively identified as EUPB2, constructed in 1993, maximum capacity of 200 lbs per hour of metal gears each, equipped with small hood filters, exhausting inside.
  - (e) Ten (10) wet type integrated machining operations, identified as EUIM-1 through EUIM-10, constructed in 2006 through 2008, each equipped with a mist collector to control oil mist generated by the process, maximum metal process throughput of 204.93 lbs/hr each, and exhausting internally.

(f) RX generators with heat treat ovens

- (1) Eight (8) RX Generators, identified as EURX1 through EURX8, constructed in 1965 through 2008, each processing natural gas at a feed rate of 395 cf/hr to be converted into 1,111 cubic feet of blanket gas per hour, used in the carburization heat treat ovens to treat metal gear assembly and subsequently combusted, identified as follows:

RX Generator	Associated Burner MMBtu/hr	Stack
EURX1	1.13	SRX1
EURX2	1.54	SRX1
EURX3	1.54	SRX3
EURX4	1.54	SRX4
EURX5	1.54	SRX5
EURX6	1.54	SRX1
EURX7	1.54	SRX4
EURX8	1.54	SRX1

- (2) Natural gas fired heat treat ovens used with a maximum heat input capacity of less than 10.0 MMBtu per hour each, exhausting inside.

Combustion units	No. of Units	MMBtu/hr
Super 36 Allcase Furnace #1, #2, #4	3	5.10
Super 36 Allcase Furnace #3	1	6.73
Auto Hardeners #2, #3, #4	3	1.00
Gas & Electric Carburizer #8	1	3.06
Gas & Electric Carburizer #9	1	5.00
Gas Carburizers #3, #4	2	4.59
Gas Carburizer #5	1	5.97
Homo Carb Draw #1 West, #2 East	2	1.25
Rotary Hardening Furnace #6	1	1.00
Small Allcase Furnace #1	1	1.00
Small Allcase Furnace#2	1	1.00
Small Allcase Furnace#3	1	1.00
Batch Anneal- Furnace	1	0.50
Lead Pot	1	1.15
LT Draw Furnace #1,#2,#3,#4	4	0.50
Nitrogen Generator	1	0.37
Program Draw #1 East and #2 west	2	1.00
Trinider Furnace	1	2.35
Draw Furnace #1 through #7	7	0.353

- (3) Electric heat treat ovens associated with carburizing, used to combust CO generated by the RX generators, exhausting inside.

- (A) One (1) Electric carburizer, identified as #6.  
 (B) One (1) Electric carburizer, identified as #7.

- (C) Two (2) Electric Homo Carb.
- (D) Electric Roller Hearth.
- (E) Nitrider Furnace
- (F) Cycle Annealer #1 and #2

(g) Boilers:

- (1) One (1) natural gas-fired boiler, identified as EUB1, constructed in 1967, rated at 0.918 MMBtu/hr .
- (2) One (1) natural gas-fired boiler, identified as EUB2, constructed in 1995, rated at 1.22 MMBtu/hr.

(h) Emergency generators used for emergency purposes:

- (1) One (1) 426 hp natural gas-fired emergency generator, constructed in 1993, exhausting outside.

Under the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) the 426 hp natural gas-fired emergency generator is considered an existing affected facility because it was constructed before June 12, 2006.

- (2) One (1) diesel air compressor, identified as EG8, constructed in 1996, with a maximum power output of 125 horsepower and maximum operating hours of 500 hrs/yr, and exhausting through SEG7.

Under the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) the diesel air compressor EG8 is considered existing affected facilities because it was constructed before June 12, 2006.

- (3) Six (6) natural gas-fired, electric emergency generators, identified as EG1 through EG7, constructed in 2005, with a maximum power output of 15 KW and maximum operating hours of 500 hrs/yr, and exhausting through SEG1 through SEG7.

Under the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) the six (6) emergency generators, identified EG1 through EG7 are considered existing affected facilities because each were constructed before June 12, 2006.

(i) Miscellaneous Combustion Units:

- (a) Miscellaneous Natural gas-fired space heaters, and part washers with heat input capacity less than 10 MMBtu/hr each.

Combustion units	No. of Units	MMBtu/hr
Roof Mount Furnaces	13	3.25
Parts Washer	1	0.80
Ransohoff Parts Washer	1	1.50
Continental Parts Washer	1	1.50
Infrared Tubular Heaters - Heat treat	4	2.0
Infrared Tubular Heaters - Receiving	15	0.1
Heat Towers in Assy Bldg.	3	5.25
Radiant Heaters in Chjip Room	2	0.20
Draw Furnaces	7	0.5

- (j) One (1) Nickel electroplating station, using dip coating and brushing the solution onto the metal gear assemblies, maximum capacity 60 lbs of metal parts/hr.

(k) Degreasers:

- (1) Sixty-six (66) cold solvent cleaning parts washers, constructed in or before 1990.  
 (2) One (1) open top vapor degreaser, identified as EUVD, installed in 2006, with a surface area of 30 ft.<sup>2</sup>

- (l) One (1) TIG Welding Operation, with a maximum capacity of 12 gear assemblies per hour, with a maximum throughput of 12,000 pounds per hour of gears, and less than 625 pounds of rod per day, exhausting indoors.

## **SECTION B GENERAL CONDITIONS**

### **B.1 Definitions [326 IAC 2-1.1-1]**

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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 2-1.1-1) shall prevail.

### **B.2 Revocation of Permits [326 IAC 2-1.1-9(5)]**

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Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

### **B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4]**

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This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 when prior to the start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.
- (c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

### **B.4 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]**

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- (a) This permit, M157-28863-00007, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

### **B.5 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.6 Enforceability**

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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.7 Severability**

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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.8 Property Rights or Exclusive Privilege**

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

**B.9 Duty to Provide Information**

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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. 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.10 Annual Notification [326 IAC 2-6.1-5(a)(5)]**

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- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.
- (b) The annual notice shall be submitted in the format attached no later than March 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
- (c) The notification 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.

**B.11 Preventive Maintenance Plan [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) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The Permittee shall implement the PMPs.

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

**B.12 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to M157-28863-00007 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

**B.13 Termination of Right to Operate [326 IAC 2-6.1-7(a)]**

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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 one hundred twenty (120) days prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-6.1-7.

**B.14 Permit Renewal [326 IAC 2-6.1-7]**

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- (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 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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 one hundred twenty (120) days 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 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.15 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 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
- (c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.16 Source Modification Requirement

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

B.17 Inspection and Entry  
[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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 permitted 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, at reasonable times, 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, at reasonable times, 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, at reasonable times, 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.18** Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 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 an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

**B.19** Annual Fee Payment [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ,.
- (b) 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.20** Credible Evidence [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 2-6.1-5(a)(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 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

#### C.3 Opacity [326 IAC 5-1]

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

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

#### C.4 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.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

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

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

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

- (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 2-6.1-5(a)(2)]**

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

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- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
no later than thirty-five (35) days prior to the intended test date.
- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.
- (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 2-6.1-5(a)(2)]**

#### **C.10 Compliance Monitoring [326 IAC 2-1.1-11]**

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Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

Indianapolis, Indiana 46204-2251

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

**C.11 Instrument Specifications [326 IAC 2-1.1-11]**

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- (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**

**C.12 Response to Excursions or Exceedances**

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

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records; and/or
  - (3) inspection of the control device, associated capture system, and the process.

- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

**C.13 Actions Related to Noncompliance Demonstrated by a Stack Test**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than thirty (30) days after receipt of the final test results.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

**Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]**

**C.14 Malfunctions Report [326 IAC 1-6-2]**

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Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).
- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

**C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]**

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

C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

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

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

#### (a) Paint Booths

- (1) One (1) large spray paint booth, identified as EUP-1, constructed in 1997, equipped with two HVLP spray guns, maximum capacity of painting 40 steel gear housings per hour, controlled with a dry filter which exhausts to stack P-1, and a process throughput of 12,000 lbs/hr of metal containers.
- (2) One (1) small spray paint booth, identified as EUP-2, constructed in 1997, equipped with one HVLP spray gun, maximum capacity of painting 2 steel gear housing per hour, controlled with a dry filter which exhausts to stack P-2, and a process throughput of 2,000 lbs/hr of metal gears.

(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 2-6.1-5(a)(1)]

#### D.1.1 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Volatile Organic Compounds, Miscellaneous Metal and Plastic Parts Coating Operations), when coating metal parts, the volatile organic compound (VOC) content of the coating delivered to the applicator at the surface coating operation, identified as EUP-1, and EUP-2 shall each be limited to 3.5 pounds per gallon of coating, excluding water, for forced warm air dried coatings.

#### D.1.2 Volatile Organic Compounds (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

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

- (1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.
- (2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.
- (3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.
- (4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.
- (5) Minimize VOC emissions from the cleaning application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

#### D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

- (a) In order to comply with D.1.1 and pursuant to 326 IAC 8-1-2(b), the large spray paint

booth, identified as EUP-1, and small spray paint booth, identified as EUP-2, the VOC emissions shall be limited to no greater than the equivalent emissions, expressed as 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 from 326 IAC 8 in pounds of VOC per gallon of coating;

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

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

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

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

- (b) The pounds of VOC per gallon of coating solids shall be limited to less than or equal to 6.67 pounds of VOC per gallon coating solids as applied.

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

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- (a) Particulate emissions from the spray paint booths, identified as EUP-1 and EUP-2, shall be controlled by a dry particulate filters, waterwash, or an equivalent control device and the Permittee shall operate the control device in accordance with manufacturer's specifications.
- (b) If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:
- (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
  - (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

#### D.1.5 Preventive Maintenance Plan

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A Preventive Maintenance Plan is required for paint booths EUP-1 and EUP-2 and the associated filters. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

### Compliance Determination Requirements

#### D.1.6 Volatile Organic Compounds

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Compliance with the VOC content and usage limitations contained in Condition D.1.1 shall be

determined pursuant to 326 IAC 8-1-4(a)(3)(A) using formulation data supplied by the coating manufacturer. However, IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

#### D.1.7 Particulate Control

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The dry filters of the paint spray booths, identified as EUP-1, and EUP-2 shall be in operation at all times when paint spray booths are in operation.

### **Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]**

#### D.1.8 Record Keeping Requirements

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- (a) To document the compliance status with Conditions D.1.1 and D.1.3, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken daily and shall be complete and sufficient to establish compliance in Conditions D.1.1 and D.1.3. Records necessary to demonstrate compliance shall be available no later than 30 days of the end of each Compliance period.
- (1) The VOC content of each coating material and solvent used less water.
  - (2) The amount of coating material and solvent less water used on a daily basis.
    - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
  - (3) If for a given day, all surface coatings and thinning solvents used in a metal surface coating operation are in compliance with the VOC content limit contained in Conditions D.1.1 and D.1.3, then the Permittee shall not be required to maintain records identified in paragraphs (1), and (2) above on that day;
- (b) To document the compliance status with Condition D.1.4, the Permittee shall maintain a record of any actions taken if overspray is visibly detected.
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

(b) Twelve (12) Shot Blasters:

- (1) One (1) wheelabrator shot blast operation, identified as EUSB1, constructed in 1964, equipped with a dust collector, DCSB1 for particulate control, with a maximum process throughput of 1,800 lbs per hour, and media 94,860 lbs/hr, exhausting through stack SSB1.
- (2) One (1) wheelabrator shot blast operation, identified as EUSB2, constructed in 1967, equipped with a dust collector, DCSB2 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 75,180 lbs/hr, exhausting through stack SSB2.
- (3) One (1) wheelabrator shot blast operation, identified as EUSB3, constructed in 1971, equipped with a dust collector, DCSB3 for particulate control, with a maximum process throughput of 2,400 lbs per hour, and media 123,660 lbs/hr, exhausting through stack SSB3.
- (4) One (1) wheelabrator shot blast operation, identified as EUSB4, constructed in 1974, equipped with a dust collector, DCSB4 for particulate control, with a maximum process throughput of 2,200 lbs per hour, and media 145,260 lbs/hr, exhausting through stack SSB4.
- (5) One (1) wheelabrator shot blast operation, identified as EUSB5, constructed in 1978, equipped with a dust collector, DCSB5 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 215,160 lbs/hr, exhausting through stack SSB5.
- (6) One (1) wheelabrator shot blast operation, identified as EUSB6, constructed in 1978, equipped with a dust collector, DCSB6 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 79,740 lbs/hr, exhausting through stack SSB6.
- (7) One (1) wheelabrator shot blast operation, identified as EUSB7, constructed in 1982, equipped with a dust collector, DCSB7 for particulate control, with a maximum process throughput of 1,800 lbs per hour, and media 245,820 lbs/hr, exhausting through stack SSB7.
- (8) One (1) wheelabrator shot blast operation, identified as EUSB8a, constructed in 1992, equipped with a dust collector, DCSB8 for particulate control, with a maximum process throughput of 1,800 lbs per hour, and media 75,180 lbs/hr, exhausting through stack SSB8.
- (9) One (1) BCast cleaning shot blast operation, identified as EUSB8b, constructed in 1967, equipped with a dust collector, DCSB8 for particulate control, with a maximum process throughput of 1,250 lbs per hour, and media 43,260 lbs/hr, exhausting through stack SSB8.
- (10) One (1) wheelabrator shot blast operation, identified as EUSB9, constructed in 2005, equipped with a dust collector, DCSB9 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 213,480 lbs/hr, exhausting through stack

SSB9.	
(11)	One (1) swing table, identified as EUSB10, constructed in 1999, equipped with a dust collector, DCSB10 for particulate control, with a maximum process throughput of 1,600 lbs per hour, and media 80,820 lbs/hr, exhausting inside.
(12)	One (1) blast belt operation, identified as EUSB11, constructed in 1999, equipped with a dust collector, DCS11 for particulate control, with a maximum process throughput of 2,600 lbs per hour, and media 106,020 lbs/hr, exhausting through stack SSB11.
(c)	Two (2) glass bead polishing and bead cleaning operations, collectively identified as EUPB1, constructed in 1995, comprised of two glass bead machines with maximum capacity of 60 lbs of metal gear assembly per hour each, and bead media 8658 lbs/hr each, with particulate controlled by dust collector, exhausting internally.
(d)	Two (2) polish lathes and grinding and drilling operation to polish gear assembly using sand paper, collectively identified as EUPB2, constructed in 1993, maximum capacity of 200 lbs per hour of metal gears each, equipped with small hood filters, exhausting inside.
(e)	Ten (10) wet type integrated machining operations, identified as EUIM-1 through EUIM-10, constructed in 2006 through 2008, each equipped with a mist collector to control oil mist generated by the process, maximum metal process throughput of 204.93 lbs/hr each, and exhausting internally.
(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 2-6.1-5(a)(1)]**

**D.2.1 Particulate [326 IAC 6-3-2(d)]**

- (a) Pursuant to 326 IAC 6-3-2, the particulate (PM) emission rates from each of the facilities shall not exceed the pound per hour limitations listed in the table below:

Unit ID / Control Device	Stack	Process Weight Rate	Allowable Particulate
		(ton / hour) P	Emission Limits (pound / hour) E
EUSB1/DCSB1	SSB1	48.33	44.26
EUSB2/DCSB2	SSB2	38.99	42.29
EUSB3/DCSB3	SSB3	63.03	46.76
EUSB4/DCSB4	SSB4	73.73	48.26
EUSB5/DCSB5	SSB5	108.98	52.14
EUSB6/DCSB6	SSB6	41.27	42.8
EUSB7/DCSB7	SSB7	123.81	53.44
EUSB8a/DCSB8	SSB8	38.39	42.15
EUSB8b/DCSB8	SSB8	22.255	37.36
EUSB9/DCSB9	SSB9	108	52.0
EUSB10/DCSB10	inside	41.20	42.79
EUSB11/DCSB11	SSB11	54.31	45.35

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

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour and  
P = process weight rate in tons per hour

- (b) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the two (2) glass bead polishing and cleaning operation shall not exceed 10.99 pounds per hour each, when operating at a process weight rate of 8,658 pounds per hour of bead media and 60 pounds per hour of metal throughput per hour each.
- (c) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the two (2) polish lathes and grinding and drilling operations shall not exceed 0.89 pounds per hour each when operating at a process weight rate of 0.103 tons per hour each.

The pound per hour limitation for (b) and (c) processes was calculated with the following equation:

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

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

## Compliance Determination Requirements

### D.2.2 Testing Requirements [326 IAC 2-6.1-5(a)(2)] [326 IAC 2-1.1-11]

Pursuant to Non-rule Policy Document titled "Approval and Validation of Alternate Emission Factors" (Air-014-NPD), and in order to verify the emission factors used to estimate uncontrolled emissions to comply with 326 IAC 2-6.1-5, the Permittee shall perform a one-time performance test on one shot blaster unit before control, to verify the PM10 and PM2.5 emission rates, not later than one hundred eighty (180) days after issuance of this permit, No. 157-28863-0007, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

**Emissions Unit Description:**

(f) Rx Generators with heat treat ovens:

- (1) Eight (8) RX Generators, identified as EURX1 through EURX8, constructed in 1965 through 2008, each processing natural gas at a feed rate of 395 cf/hr to be converted into 1,111 cubic feet of blanket gas per hour, used in the carburization heat treat ovens to treat metal gear assembly and subsequently combusted, identified as follows:

RX Generator	Associated Burner MMBtu/hr	Stack
EURX1	1.13	SRX1
EURX2	1.54	SRX1
EURX3	1.54	SRX3
EURX4	1.54	SRX4
EURX5	1.54	SRX5
EURX6	1.54	SRX1
EURX7	1.54	SRX4
EURX8	1.54	SRX1

- (2) Natural gas fired heat treat ovens, with a maximum heat input capacity of less than 10.0 MMBtu per hour each, exhausting inside.

Combustion units	No. of Units	MMBtu/hr
Super 36 Allcase Furnace #1, #2, #4	3	5.10
Super 36 Allcase Furnace #3	1	6.73
Auto Hardeners #2, #3, #4	3	1.00
Gas & Electric Carburizer #8	1	3.06
Gas & Electric Carburizer #9	1	5.00
Gas Carburizers #3, #4	2	4.59
Gas Carburizer #5	1	5.97
Homo Carb Draw #1 West, #2 East	2	1.25
Rotary Hardening Furnace #6	1	1.00
Small Allcase Furnace #1	1	1.00
Small Allcase Furnace#2	1	1.00
Small Allcase Furnace#3	1	1.00
Batch Anneal- Furnace	1	0.50
Lead Pot	1	1.15
LT Draw Furnace #1,#2,#3,#4	4	0.50
Nitrogen Generator	1	0.37
Program Draw #1 East and #2 west	2	1.00
Trinider Furnace	1	2.35
Draw Furnace #1 through #7	7	0.353

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

### **Compliance Determination Requirements**

#### **D.3.1 RX generators and heat treat ovens**

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Pursuant to 326 IAC 2-6.1-5, and in order to comply with CO emissions, the presence of flames at the pilot lights shall be provided at all openings of the oven to insure the burn off of excess CO when RX generators are in operation.

### **Compliance Monitoring Requirements [326 IAC 2-6.1-5(a) (2)]**

#### **D.3.2 Flare Pilot Monitoring**

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Pursuant to 326 IAC 2-6.1-5, and in order to comply with CO emissions, the Permittee shall install and monitor automatic flame recognition audible alarm or any other equivalent device, at the control panel of each furnace that is equipped with a pilot CO burner to detect the presence of flares at the pilot light when RX generators are in operation.

### **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)]**

#### **D.3.3 Record Keeping Requirements**

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- (a) The Permittee shall maintain related parameters sufficient to demonstrate the presence of a pilot flame when operating the RX generators including records of the audible alarms and response steps taken.
  
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (g) Boilers:
- (1) One (1) natural gas-fired boiler, identified as EUB1, constructed in 1967, rated at 0.918 MMBtu/hr.
  - (2) One (1) natural gas-fired boiler, identified as EUB2, constructed in 1995, rated at 1.22 MMBtu/hr.

(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 2-6.1-5(a)(1)]

#### D.4.1 Particulate Emission Limitations [326 IAC 6-2-3]

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Pursuant to 326 IAC 6-2-3(d), particulate emissions from the one (1) boiler identified as EUB1, shall not exceed 0.8 pound per million British thermal units.

#### D.4.2 Particulate Matter (PM) [326 IAC 6-2-4]

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Pursuant to 326 IAC 6-2-4, particulate emissions from the one (1) boiler, identified as EUB2, shall not exceed 0.6 pound per million British thermal units.

## SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

(k) Degreasers:

- (1) Sixty-six (66) cold solvent cleaning parts washers, constructed in or before 1990.
- (2) One (1) open top vapor degreaser, identified as EUVD, installed in 2006, with a surface area of 30 ft.<sup>2</sup>

(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 2-6.1-5(a)(1)]

#### D.5.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2, for each of the sixty six (66) Cold Cleaners, the owner or operator shall:

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

#### D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant 326 IAC 8-3-5(a), the owner or operator shall ensure that the following control equipment requirements are met for each of the sixty six (66) Cold Cleaners:
  - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)),

then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

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

#### D.5.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-3]

Pursuant to 326 IAC 8-3-3, for open top vapor degreaser EUVD, the owner or operator shall:

- (1) equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
- (2) keep the cover closed at all times except when processing work loads through the degreaser.
- (3) minimize solvent carryout by:
  - (A) racking parts to allow complete drainage;
  - (B) moving parts in and out of the degreaser at less than 3.3 meters per minute (eleven (11) feet per minute);
  - (C) degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;

- (D) tipping out any pools of solvent on the cleaned parts before removal; and
- (E) allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry;
- (4) not degrease porous or absorbent materials, such as cloth, leather, wood or rope;
- (5) not occupy more than half of the degreaser's open top area with the workload;
- (6) not load the degreaser such that the vapor level drops more than fifty percent (50%) of the vapor depth when the workload is removed;
- (7) never spray above the vapor level;
- (8) repair solvent leaks immediately, or shut down the degreaser;
- (9) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;
- (10) not use workplace fans near the degreaser opening;
- (11) not allow visually detectable water in the solvent exiting the water separator; and
- (12) provide a permanent, conspicuous label summarizing the operating requirements.

**D.5.4 326 IAC 8-3-6 Open top vapor degreaser operation and control requirements:**

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The owner or operator of an open top vapor degreaser shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
- (2) Equip the degreaser with the following switches:
  - (A) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.
  - (B) A spray safety switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).
- (3) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (4) Equip the degreaser with one (1) of the following control devices:
  - (A) A freeboard ratio of seventy-five hundredths (0.75) or greater and a powered cover if the degreaser opening is greater than one (1) square meter (ten and eight-tenths (10.8) square feet).
  - (B) A refrigerated chiller.
  - (C) An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser.

- (D) A carbon adsorption system with ventilation which, with the cover open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to vapor interface area and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.
  - (E) Other systems of demonstrated equivalent or better control as those outlined in clauses (A) through (D). Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) The owner or operator of an open top vapor degreaser shall ensure that the following operating requirements are met:
- (1) Keep the cover closed at all times except when processing workloads through the degreaser.
  - (2) Minimize solvent carryout emissions by:
    - (A) racking articles to allow complete drainage;
    - (B) moving articles in and out of the degreaser at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute);
    - (C) degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
    - (D) tipping out any pools of solvent on the cleaned articles before removal; and
    - (E) allowing articles to dry within the degreaser for at least fifteen (15) seconds or until visually dry.
  - (3) Prohibit the entrance into the degreaser of porous or absorbent materials such as, but not limited to, cloth, leather, wood, or rope.
  - (4) Prohibit occupation of more than one-half (2) of the degreaser's open top area with the workload.
  - (5) Prohibit the loading of the degreaser to the point where the vapor level would drop more than ten (10) centimeters (four (4) inches) when the workload is removed.
  - (6) Prohibit solvent spraying above the vapor level.
  - (7) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.
  - (8) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.
  - (9) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless requirements.

- (10) Prohibit the use of workplace fans near the degreaser opening.
- (11) Prohibit visually detectable water in the solvent exiting the water separator.

## SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

### **Emissions Unit Description: NESHAPS**

(h) Emergency generators used for emergency purposes:

- (1) One (1) 426 hp natural gas-fired emergency generator, constructed in 1993, exhausting outside.

Under the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) the 426 natural gas-fired emergency generator is considered an existing affected facility because it was constructed before June 12, 2006.

- (2) One (1) diesel air compressor, identified as EG8, constructed in 1996, with a maximum power output of 125 horsepower and maximum operating hours of 500 hrs/yr, and exhausting through SEG7.

Under the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) the diesel air compressor EG8 is considered existing affected facilities because it was constructed before June 12, 2006.

- (3) Six (6) natural gas-fired, electric emergency generators, identified as EG1 through EG7, constructed in 2005, with a maximum power output of 15 KW and maximum operating hours of 500 hrs/yr, and exhausting through SEG1 through SEG7.

Under the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) the six (6) emergency generators, identified EG1 through EG7 are considered existing affected facilities because each were constructed before June 12, 2006.

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

### **National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [40 CFR 63]**

#### **E.1.1 NESHAP for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]**

The one (1) 426 hp natural gas-fired emergency generator, diesel compressor EG8, six (6) natural gas-fired electric emergency generators EG1 through EG7 (constructed before June 12, 2006) are subject to the requirements of the 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary reciprocating internal combustion engine (RICE), which are incorporated by reference as 326 IAC 20-82, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ (included as Attachment A of this permit):

- 63.6585(a), (c), (d)
- 63.6590(a)(1)(iii)
- 63.6603(a)

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

**MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

<b>Company Name:</b>	Fairfield Manufacturing Company, Inc.
<b>Address:</b>	2309 Concord Road
<b>City:</b>	Lafayette, Indiana 47903
<b>Phone #:</b>	765-772-4000
<b>MSOP #:</b>	M157-28863-00007

I hereby certify that Fairfield Manufacturing Company, Inc.  still in operation.

no longer in operation.

I hereby certify that Fairfield Manufacturing Company, Inc.  in compliance with the requirements of MSOP M157-28863-00007.

:

not in compliance with the requirements of MSOP M157-28863-00007.

<b>Authorized Individual (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

<b>Noncompliance:</b>

### MALFUNCTION REPORT

#### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE AND ENFORCEMENT BRANCH FAX NUMBER: (317) 233-6865

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

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?\_\_\_\_\_, 25 TONS/YEAR SULFUR DIOXIDE ?\_\_\_\_\_, 25 TONS/YEAR NITROGEN OXIDES?\_\_\_\_\_, 25 TONS/YEAR VOC ?\_\_\_\_\_, 25 TONS/YEAR HYDROGEN SULFIDE ?\_\_\_\_\_, 25 TONS/YEAR TOTAL REDUCED SULFUR ?\_\_\_\_\_, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?\_\_\_\_\_, 25 TONS/YEAR FLUORIDES ?\_\_\_\_\_, 100 TONS/YEAR CARBON MONOXIDE ?\_\_\_\_\_, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?\_\_\_\_\_, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?\_\_\_\_\_, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?\_\_\_\_\_. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION \_\_\_\_\_.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC \_\_\_\_\_ OR, PERMIT CONDITION # \_\_\_\_\_ AND/OR PERMIT LIMIT OF \_\_\_\_\_

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: \_\_\_\_\_ PHONE NO. ( ) \_\_\_\_\_  
LOCATION: (CITY AND COUNTY) \_\_\_\_\_  
PERMIT NO. \_\_\_\_\_ AFS PLANT ID: \_\_\_\_\_ AFS POINT ID: \_\_\_\_\_ INSP: \_\_\_\_\_  
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: \_\_\_\_\_

DATE/TIME MALFUNCTION STARTED: \_\_\_\_/\_\_\_\_/20\_\_\_\_ \_\_\_\_\_ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: \_\_\_\_\_

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE \_\_\_\_/\_\_\_\_/20\_\_\_\_ \_\_\_\_\_ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: \_\_\_\_\_

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: \_\_\_\_\_

MEASURES TAKEN TO MINIMIZE EMISSIONS: \_\_\_\_\_

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL\* SERVICES: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: \_\_\_\_\_

CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: \_\_\_\_\_

INTERIM CONTROL MEASURES: (IF APPLICABLE) \_\_\_\_\_

MALFUNCTION REPORTED BY: \_\_\_\_\_ TITLE: \_\_\_\_\_  
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

\*SEE PAGE 2

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

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

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

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

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

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

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

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

Fairfield Manufacturing Company, Inc.  
2309 Concord Road  
Lafayette, Indiana 47903

Affidavit of Construction

I, \_\_\_\_\_, being duly sworn upon my oath, depose and say:  
(Name of the Authorized Representative)

1. I live in \_\_\_\_\_ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of \_\_\_\_\_ for \_\_\_\_\_.  
(Title) (Company Name)
3. By virtue of my position with \_\_\_\_\_, I have personal  
(Company Name)  
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of \_\_\_\_\_.  
(Company Name)
4. I hereby certify that Fairfield Manufacturing Company, Inc. 2309 Concord Road, Lafayette, Indiana 47903, completed construction of the custom manufacturing steel gears and gear assemblies to specifications on in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on **January 8, 2010** and as permitted pursuant to New Source Construction Permit and Minor Source Operating Permit No. M157-28863-00007, Plant ID No. 157-00007 issued on \_\_\_\_\_.
5. Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature \_\_\_\_\_  
Date \_\_\_\_\_

STATE OF INDIANA)  
)SS

COUNTY OF \_\_\_\_\_ )

Subscribed and sworn to me, a notary public in and for \_\_\_\_\_ County and State of Indiana  
on this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_. My Commission expires: \_\_\_\_\_.

Signature \_\_\_\_\_  
Name \_\_\_\_\_ (typed or printed)

## Attachment A

### Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

**Source:** 69 FR 33506, June 15, 2004, unless otherwise noted.

#### What This Subpart Covers

#### § 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

#### § 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008]

#### § 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.*

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) *Reconstructed stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

- (ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
  - (iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
  - (iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
  - (v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
  - (vi) Existing residential emergency stationary RICE located at an area source of HAP emissions;
  - (vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions; or
  - (viii) Existing institutional emergency stationary RICE located at an area source of HAP emissions.
- (c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

- (1) A new or reconstructed stationary RICE located at an area source;
- (2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;
- (4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
- (6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010]

### **§ 63.6595 When do I have to comply with this subpart?**

- (a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an

existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

## **Emission and Operating Limitations**

### **§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

**§ 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

**§ 63.6602 What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?**

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

[75 FR 51589, Aug. 20, 2010]

**§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?**

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the Federal Aid Highway System (FAHS) you do not have to meet the numerical CO emission limitations specified in Table 2d to this subpart. Existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the FAHS must meet the management practices that are shown for stationary non-emergency CI RICE less than or equal to 300 HP in Table 2d to this subpart.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

#### **§ 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?**

If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.

[75 FR 51589, Aug. 20, 2010]

#### **General Compliance Requirements**

#### **§ 63.6605 What are my general requirements for complying with this subpart?**

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010]

#### **Testing and Initial Compliance Requirements**

#### **§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?**

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions,

and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

§63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

**§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?**

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

### § 63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

### § 63.6620 What performance tests and other procedures must I use?

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

$C_i$  = concentration of CO or formaldehyde at the control device inlet,

$C_o$  = concentration of CO or formaldehyde at the control device outlet, and

R = percent reduction of CO or formaldehyde emissions.

(2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO<sub>2</sub>). If pollutant concentrations are to be corrected to 15 percent oxygen and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific  $F_o$  value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

Where:

$F_o$  = Fuel factor based on the ratio of oxygen volume to the ultimate  $CO_2$  volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

$F_d$  = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19,  $dscf / J$  ( $dscf / 10^6$  Btu).

$F_c$  = Ratio of the volume of  $CO_2$  produced to the gross calorific value of the fuel from Method 19,  $dscf / J$  ( $dscf / 10^6$  Btu).

(ii) Calculate the  $CO_2$  correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

$X_{CO_2}$  =  $CO_2$  correction factor, percent.

5.9 = 20.9 percent  $O_2$  - 15 percent  $O_2$ , the defined  $O_2$  correction value, percent.

(iii) Calculate the  $NO_x$  and  $SO_2$  gas concentrations adjusted to 15 percent  $O_2$  using  $CO_2$  as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 4})$$

Where:

$\%CO_2$  = Measured  $CO_2$  concentration measured, dry basis, percent.

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally ( e.g., operator adjustment, automatic controller adjustment, etc.) or unintentionally ( e.g., wear and tear, error, etc.) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010]

### **§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?**

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO<sub>2</sub> at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO<sub>2</sub> concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (8) 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 successive cycles of operation to have a valid hour of data.

(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any 15-minute period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (b)(3) of this section.

(5) Record the results of each inspection, calibration, and validation check.

(6) You must develop a site-specific monitoring plan that addresses paragraphs (b)(6)(i) through (vi) of this section.

(i) Installation of the CPMS sampling probe or other interface at the appropriate location to obtain representative measurements;

(ii) Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;

(iii) Performance evaluation procedures and acceptance criteria ( e.g., calibrations);

(iv) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), and (c)(4)(ii);

(v) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).

(7) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(8) You must operate and maintain the CPMS in continuous operation according to the site-specific monitoring plan.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily

with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

- (1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;
- (2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;
- (3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;
- (4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;
- (5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;
- (6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;
- (7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
- (8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
- (9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and
- (10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) of this section.

- (1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
- (2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

(k) If you have an operating limitation that requires the use of a temperature measurement device, you must meet the requirements in paragraphs (k)(1) through (4) of this section.

(1) Locate the temperature sensor and other necessary equipment in a position that provides a representative temperature.

(2) Use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 1.0 percent of the temperature value, whichever is larger, for a noncryogenic temperature range.

(3) Use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 2.5 percent of the temperature value, whichever is larger, for a cryogenic temperature range.

(4) Conduct a temperature measurement device calibration check at least every 3 months.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

### **§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?**

(a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.

(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

### **Continuous Compliance Requirements**

#### **§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?**

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously at all times that the stationary RICE is operating.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

#### **§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?**

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) [Reserved]

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(f) *Requirements for emergency stationary RICE.* (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

(2) If you own or operate an emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed prior to June 12, 2006, you must operate the engine according to the conditions described in paragraphs (f)(2)(i) through (iii) of this section. If you do not operate the engine according to the requirements in paragraphs (f)(2)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.

(iii) You may operate your emergency stationary RICE for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

## **Notifications, Reports, and Records**

**§ 63.6645 What notifications must I submit and when?**

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

**§ 63.6650 What reports must I submit and when?**

- (a) You must submit each report in Table 7 of this subpart that applies to you.
- (b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.
- (1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.
- (2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.
- (3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- (4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
- (5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.
- (6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.
- (7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.
- (8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
- (9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
- (c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.
- (1) Company name and address.
- (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
- (3) Date of report and beginning and ending dates of the reporting period.
- (4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

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

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

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

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the

same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010]

### **§ 63.6655 What records must I keep?**

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation ( *i.e.*, process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous ( *i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010]

### **§ 63.6660 In what form and how long must I keep my records?**

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

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

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

### **Other Requirements and Information**

#### **§ 63.6665 What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

### **§ 63.6670 Who implements and enforces this subpart?**

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

### **§ 63.6675 What definitions apply to this subpart?**

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

*Area source* means any stationary source of HAP that is not a major source as defined in part 63.

*Associated equipment* as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

*Black start engine* means an engine whose only purpose is to start up a combustion turbine.

CAA means the Clean Air Act (42 U.S.C. 7401 *et seq.*, as amended by Public Law 101-549, 104 Stat. 2399).

*Commercial emergency stationary RICE* means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

*Compression ignition* means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

*Custody transfer* means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

*Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.
- (4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

*Diesel engine* means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

*Diesel fuel* means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties ( e.g. biodiesel) that is suitable for use in compression ignition engines.

*Digester gas* means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO<sub>2</sub>.

*Dual-fuel engine* means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

*Emergency stationary RICE* means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

*Engine startup* means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

*Four-stroke engine* means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

*Gaseous fuel* means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

*Gasoline* means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

*Glycol dehydration unit* means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a

contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

*Hazardous air pollutants (HAP)* means any air pollutants listed in or pursuant to section 112(b) of the CAA.

*Institutional emergency stationary RICE* means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

*ISO standard day conditions* means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

*Landfill gas* means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO<sub>2</sub>.

*Lean burn engine* means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

*Limited use stationary RICE* means any stationary RICE that operates less than 100 hours per year.

*Liquefied petroleum gas* means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

*Liquid fuel* means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

*Major Source*, as used in this subpart, shall have the same meaning as in §63.2, except that:

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*Natural gas* means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

*Non-selective catalytic reduction (NSCR)* means an add-on catalytic nitrogen oxides (NO<sub>x</sub>) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO<sub>x</sub>, CO, and volatile organic compounds (VOC) into CO<sub>2</sub>, nitrogen, and water.

*Oil and gas production facility* as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded ( *i.e.*, remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

*Oxidation catalyst* means an add-on catalytic control device that controls CO and VOC by oxidation.

*Peaking unit or engine* means any standby engine intended for use during periods of high demand that are not emergencies.

*Percent load* means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

*Potential to emit* means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in §63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to §63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to §63.1270(a)(2).

*Production field facility* means those oil and gas production facilities located prior to the point of custody transfer.

*Production well* means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

*Propane* means a colorless gas derived from petroleum and natural gas, with the molecular structure C<sub>3</sub>H<sub>8</sub>.

*Residential emergency stationary RICE* means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

*Responsible official* means responsible official as defined in 40 CFR 70.2.

*Rich burn engine* means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO<sub>x</sub>(such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

*Site-rated HP* means the maximum manufacturer's design capacity at engine site conditions.

*Spark ignition* means relating to either: A gasoline-fueled engine; or any other type of engine a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

*Stationary reciprocating internal combustion engine (RICE)* means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

*Stationary RICE test cell/stand* means an engine test cell/stand, as defined in subpart P P P P P of this part, that tests stationary RICE.

*Stoichiometric* means the theoretical air-to-fuel ratio required for complete combustion.

*Storage vessel with the potential for flash emissions* means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

*Subpart* means 40 CFR part 63, subpart Z Z Z Z.

*Surface site* means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

*Two-stroke engine* means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010]

**Table 1 to Subpart Z Z Z Z of Part 63— Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>1</sup>
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub>	

<sup>1</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

**Table 1bto Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed Spark Ignition 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions and Existing Spark Ignition 4SRB Stationary RICE >500 HP Located at an Area Source of HAP Emissions**

As stated in §§63.6600, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions and existing 4SRB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

<b>For each . . .</b>	<b>You must meet the following operating limitation . . .</b>
1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus; 10 percent from the pressure drop across the catalyst measured during the initial performance test and
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub> and using NSCR; or	b. maintain the temperature of your stationary RICE exhaust so the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O <sub>2</sub> and using NSCR.	
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or	Comply with any operating limitations approved by the Administrator.
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub> and not using NSCR; or	
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O <sub>2</sub> and using NSCR.	

[75 FR 51592, Aug. 20, 2010]

**Table 2ato Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	<b>You must meet the following emission limitation, except during periods of startup . . .</b>	<b>During periods of startup you must . . .</b>
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O <sub>2</sub> . If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O <sub>2</sub> until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>1</sup>
2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O <sub>2</sub>	
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O <sub>2</sub>	

<sup>1</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

**Table 2bto Subpart ZZZZ of Part 63— Operating Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing Compression Ignition Stationary RICE >500 HP, and Existing 4SLB Stationary RICE >500 HP Located at an Area Source of HAP Emissions**

As stated in §§63.6600, 63.6601, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and compression ignition stationary RICE located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE  $\geq 250$  HP located at a major source of HAP emissions; existing compression ignition stationary RICE  $>500$  HP; and existing 4SLB stationary RICE  $>500$  HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

For each . . .	You must meet the following operating limitation . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. <sup>1</sup>
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst	Comply with any operating limitations approved by the Administrator.

<sup>1</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.

[75 FR 51593, Aug. 20, 2010]

**Table 2cto Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE  $\leq 500$  HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE  $\leq 500$  HP located at a major source of HAP emissions:

For each . . .	You must meet the	During periods of startup you must . . .
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	<b>following requirement, except during periods of startup . . .</b>	
1. Emergency stationary CI RICE and black start stationary CI RICE. <sup>1</sup>	<p>a. Change oil and filter every 500 hours of operation or annually, whichever comes first;<sup>2</sup></p> <p>b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;</p> <p>c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.<sup>3</sup></p>	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>3</sup>
2. Non-Emergency, non-black start stationary CI RICE <100 HP	<p>a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first;<sup>2</sup></p>	
	<p>b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;</p>	
	<p>c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.<sup>3</sup></p>	
3. Non-Emergency, non-black start CI stationary RICE $100 \leq \text{HP} \leq 300$ HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O <sub>2</sub>	
4. Non-Emergency, non-black start CI stationary RICE $300 < \text{HP} \leq 500$	<p>a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O<sub>2</sub>; or</p>	
	<p>b. Reduce CO emissions by 70 percent or more.</p>	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less	

	at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE. <sup>1</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>2</sup>	
	b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>2</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>2</sup>	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 4,320 hours of	

	operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O <sub>2</sub>	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O <sub>2</sub>	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O <sub>2</sub>	
12. Non-emergency, non-black start landfill or digester gas-fired stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O <sub>2</sub>	

<sup>1</sup>If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

<sup>2</sup>Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

<sup>3</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 51593, Aug. 20, 2010]

**Table 2dto Subpart ZZZZ of Part 63— Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions**

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

<b>For each . . .</b>	<b>You must meet the following requirement,</b>	<b>During periods of startup you must . . .</b>
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	<b>except during periods of startup . . .</b>	
1. Non-Emergency, non-black start CI stationary RICE $\leq 300$ HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; <sup>1</sup>	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
2. Non-Emergency, non-black start CI stationary RICE $300 < \text{HP} \leq 500$	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE $> 500$ HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE. <sup>2</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup>	

	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year. <sup>2</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup> b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start	a. Change oil and filter	

4SLB stationary RICE $\leq$ 500 HP	every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 93 percent or more.	
9. Non-emergency, non-black start 4SRB stationary RICE $\leq$ 500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
10. Non-emergency, non-black start 4SRB stationary RICE >500 HP	a. Limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd	

	at 15 percent O <sub>2</sub> ; or	
	b. Reduce formaldehyde emissions by 76 percent or more.	
11. Non-emergency, non-black start landfill or digester gas-fired stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

<sup>1</sup>Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

<sup>2</sup>If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[75 FR 51595, Aug. 20, 2010]

**Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests**

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE with a brake horsepower >500 located at major sources; new or reconstructed 4SLB stationary	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. <sup>1</sup>

RICE with a brake horsepower $\geq 250$ located at major sources; and new or reconstructed CI stationary RICE with a brake horsepower $> 500$ located at major sources		
2. 4SRB stationary RICE with a brake horsepower $\geq 5,000$ located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually. <sup>1</sup>
3. Stationary RICE with a brake horsepower $> 500$ located at major sources and new or reconstructed 4SLB stationary RICE with a brake horsepower $250 \leq HP \leq 500$ located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually. <sup>1</sup>
4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower $> 500$ that are not limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower $> 500$ that are operated more than 24 hours per calendar year that are not limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower $> 500$ that are limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower $> 500$ that are operated more than 24 hours per calendar year and are limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 5 years, whichever comes first.

<sup>1</sup>After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[75 FR 51596, Aug. 20, 2010]

**Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests**

As stated in §§63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You must . . .</b>	<b>Using . . .</b>	<b>According to the following requirements . . .</b>
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1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Measure the O <sub>2</sub> at the inlet and outlet of the control device; and	(1) Portable CO and O <sub>2</sub> analyzer	(a) Using ASTM D6522–00 (2005) <sup>a</sup> (incorporated by reference, see §63.14). Measurements to determine O <sub>2</sub> must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control device	(1) Portable CO and O <sub>2</sub> analyzer	(a) Using ASTM D6522–00 (2005) <sup>ab</sup> (incorporated by reference, see §63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O <sub>2</sub> , dry basis.
2. 4SRB stationary RICE	a. Reduce formaldehyde emissions	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O <sub>2</sub> at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00m (2005)	(a) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for formaldehyde concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03, <sup>c</sup> provided in ASTM D6348–03	(a) Formaldehyde concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.

			Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	
3. Stationary RICE	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O <sub>2</sub> concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (2005)	(a) Measurements to determine O <sub>2</sub> concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03, <sup>c</sup> provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at	(1) Method 10 of 40	(a) CO Concentration

		the exhaust of the stationary RICE	CFR part 60, appendix A, ASTM Method D6522–00 (2005), <sup>a</sup> Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03	must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour longer runs.
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<sup>a</sup>You may also use Methods 3A and 10 as options to ASTM–D6522–00 (2005). You may obtain a copy of ASTM–D6522–00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106. ASTM–D6522–00 (2005) may be used to test both CI and SI stationary RICE.

<sup>b</sup>You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03.

<sup>c</sup>You may obtain a copy of ASTM–D6348–03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[75 FR 51597, Aug. 20, 2010]

**Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations and Operating Limitations**

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You have demonstrated initial compliance if . . .</b>
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. New or reconstructed non-	a. Reduce CO	i. The average reduction of

<p>emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE <math>\geq</math>250 HP located at a major source of HAP, non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>emissions and not using oxidation catalyst</p>	<p>emissions of CO determined from the initial performance test achieves the required CO percent reduction; and                      ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and                      iii. You have recorded the approved operating parameters (if any) during the initial performance test.</p>
<p>3. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE <math>\geq</math>250 HP located at a major source of HAP, non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>a. Reduce CO emissions, and using a CEMS</p>	<p>i. You have installed a CEMS to continuously monitor CO and either O<sub>2</sub> or CO<sub>2</sub> at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and                      ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and                      iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.</p>
<p>4. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>a. Reduce formaldehyde emissions and using NSCR</p>	<p>i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and                      ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and</p>

		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
6. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to

		the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
8. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Reduce CO or formaldehyde emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
9. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.

[75 FR 51598, Aug. 20, 2010]

**Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices**

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You must demonstrate continuous compliance by . . .</b>
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved; <sup>a</sup> and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop

		across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved; <sup>a</sup> and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP, existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions and using a CEMS	i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period; and iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating

		limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP $\geq 5,000$ located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved. <sup>a</sup>
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit; <sup>a</sup> and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure

		drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit; <sup>a</sup> and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. Existing emergency and black start stationary RICE $\leq 500$ HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE $\leq 300$ HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency landfill or digester gas stationary SI RICE located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE $\leq 500$ HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

calendar year		
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and

		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using an oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using an oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved

		operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

<sup>a</sup>After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[75 FR 51600, Aug. 20, 2010]

**Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports**

As stated in §63.6650, you must comply with the following requirements for reports:

<b>For each ...</b>	<b>You must submit a ...</b>	<b>The report must contain ...</b>	<b>You must submit the report ...</b>
1. Existing non-emergency, non-black start stationary RICE $100 \leq \text{HP} \leq 500$ located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE $>500$ HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE $>500$ HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE $>300$ HP located at an area source of HAP; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE $>500$ HP located at an area source of HAP and operated more than 24 hours per calendar year; new or	Compliance report	a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If	i. Semiannually according to the requirements in §63.6650(b)(1)–(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according to the requirements in §63.6650(b)(6)–(9) for engines that are limited use stationary RICE subject to numerical emission limitations. i. Semiannually according to the requirements in §63.6650(b). i. Semiannually according to the

reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP		there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4)	requirements in §63.6650(b).
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and	i. Annually, according to the requirements in §63.6650.
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.

[75 FR 51603, Aug. 20, 2010]

**Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.**

As stated in §63.6665, you must comply with the following applicable general provisions.

<b>General provisions citation</b>	<b>Subject of citation</b>	<b>Applies to subpart</b>	<b>Explanation</b>
§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.

§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)–(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)–(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures and criteria	Yes.	
§63.6(j)	Presidential compliance exemption	Yes.	

§63.7(a)(1)–(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		

§63.8(a)(4)	Monitoring for control devices	No.	
§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	Yes.	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	Yes.	
§63.8(c)(2)–(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)–(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for

			COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	
§63.9(b)(1)–(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as	

		specified in §63.6645.	
§63.9(h)(1)–(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes.	
§63.10(b)(2)(i)–(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)–(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)–(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE	No	Subpart ZZZZ does not

	observations		contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i)(C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

**Indiana Department of Environmental Management  
Office of Air Quality**

Addendum to the Technical Support Document (ATSD) for a  
Minor Source Operating Permit (MSOP) with New Source Review (NSR)

**Source Background and Description**

<b>Source Name:</b>	<b>Fairfield Manufacturing Company, Inc.</b>
<b>Source Location:</b>	<b>2309 Concord Road, Lafayette, IN 47903</b>
<b>County:</b>	<b>Tippecanoe</b>
<b>SIC Code:</b>	<b>3566</b>
<b>MSOP No.:</b>	<b>M157-28863-00007</b>
<b>Permit Reviewer:</b>	<b>Swarna Prabha</b>

On February 01, 2011, the Office of Air Quality (OAQ) had a notice published in Journal and Courier, Lafayette, Indiana, stating that Fairfield Manufacturing Company, Inc. had applied for a Minor Source operating Permit related to the transition of a registration to a MSOP due to the additional emissions from the new emission units and continued operation of an existing stationary source. This source is a job shop, which custom manufactures steel gears and gear assemblies to specifications provided by clients. The notice also stated that the OAQ proposed to issue a Minor Source Operating 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 and Responses**

On March 03, 2011, Tom Rarick of ERM submitted comments to IDEM on behalf of Fairfield Manufacturing Company, Inc., OAQ on the draft Minor Source Operating Permit.

The Technical Support Document (TSD) is used by IDEM, OAQ for historical purposes. IDEM, OAQ does not make any changes to the original TSD, but the Permit will have the updated changes. The comments and revised permit language are provided below with deleted language as ~~strikeouts~~ and new language **bolded**.

**Comment 1:**

We would note that there are a number of formatting problems in the permit document that should be cleaned up. These may be due to the conversion to a pdf file.

**Response to Comment 1:**

IDEM agrees that the formatting problem is due to the conversion to a pdf file in data base. It has been corrected.

**Comment 2:**

**Conditions C.10, Compliance Monitoring D.3.2, Flare Pilot Monitoring:** These two conditions taken together would require that we already have installed the pilot monitoring devices, and it will take some period of time to procure and install the monitors. We would request that the permit specify that monitoring required by this permit, not previously required be instituted within 90 days of the issuance of the permit, with provisions to request an additional 90 days.

**Response to Comment 2:**

IDEM agrees with the recommended changes. The permit has been revised as follows:

**C.10 Compliance Monitoring [326 IAC 2-1.1-11]**

~~Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.~~

**Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:**

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

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

**The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).**

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

**Comment 3:**

1. Condition D.1.8, Record Keeping: Paragraph (a) contains recordkeeping requirements that relate to the VOC limit in condition D.1.1 and as such should require that daily rather than monthly records be maintained and should only refer to emission limits rather than usage limits, since condition D.1.1 does not include any usage limits. In addition, the reference at the end of paragraph (a)(3) should be changed to paragraphs (1) and (2), since there are no paragraphs (3) and (4). The following revisions are recommended for this paragraph:

(a) To document the Compliance status with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken ~~monthly~~ daily and shall be complete and sufficient to establish Compliance with the VOC ~~usage limits and/or the~~ VOC emission limits established in Condition D.1.1. Records necessary to demonstrate Compliance shall be available no later than 30 days of the end of each Compliance period.

- (1) The VOC content of each coating material and solvent used less water.
- (2) The amount of coating material and solvent less water used on a daily basis.

- (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
- (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
- (3) If for a given day, all surface coatings and thinning solvents used in a metal surface coating operation are in compliance with the VOC content limit contained in Condition D.1.1, then the Permittee shall not be required to maintain records identified in paragraphs (1) and (2) ~~(3), and (4)~~ above on that day;

**Response to Comment 3:**

IDEM agrees with the recommended changes. The permit has been revised as follows:

**Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]**

**D.1.8 Record Keeping Requirements**

- 
- (a) To document the compliance status with Conditions D.1.1 **and D.1.3**, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken ~~monthly~~ **daily** and shall be complete and sufficient to establish ~~compliance with the VOC emission limits established in Conditions D.1.1 and D.1.3.~~ Records necessary to demonstrate compliance shall be available no later than 30 days of the end of each Compliance period.
    - (1) The VOC content of each coating material and solvent used less water.
    - (2) The amount of coating material and solvent less water used on a daily basis.
      - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
      - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
    - (3) If for a given day, all surface coatings and thinning solvents used in a metal surface coating operation are in compliance with the VOC content limit contained in Conditions D.1.1 **and D.1.3**, then the Permittee shall not be required to maintain records identified in paragraphs ~~(31)~~, and ~~(42)~~ above on that day.

...

**Comment 4:**

**Condition D.5.2, Volatile Organic Compounds:** There is a second paragraph (b) under this condition that would apply to vapor degreasers, whereas the overall section applies to cold cleaners. This second paragraph (b) also appears to be incomplete as it does not specify the required switches. It appears that these provisions for open top vapor degreasers are covered in condition D.5.4 and as such we request that the second paragraph (b) of condition D.5.2 be deleted.

**Response to Comment 4:**

D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

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...

(b) Pursuant 326 IAC 8-3-5(b), the owner or operator **of a cold cleaning facility** shall ensure that the following operating requirements are met for each of the ~~aqua force cleaning~~ parts washers ~~(515-36 and 515-37)~~:

- (1) Close the cover whenever articles are not being handled in the degreaser.
- (2) Drain cleaned articles for at least fifteen (15) seconds or unit dripping ceases.
- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

~~(b) Pursuant to 326 IAC 8-3-6 Open top vapor degreaser operation and control requirements The owner or operator of an open top vapor degreaser shall ensure that the following control equipment requirements are met:~~

- ~~(1) Equip the degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.~~
- ~~(2) Equip the degreaser with the following switches:~~

...

<b>Additional Changes</b>
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IDEM, OAQ has decided to make additional revisions to the permit as described below, with deleted language as ~~strikeouts~~ and new language **bolded**.

IDEM has revised the Conditions D.1.1 and D.1.3 as follows to clarify the applicability of VOC emission limitations pursuant 326 IAC 8-2-9 and compliance method determination pursuant to 326 IAC 8-1-2(b).

D.1.1 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]

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Pursuant to 326 IAC 8-2-9 (Volatile Organic Compounds, Miscellaneous Metal and Plastic Parts Coating Operations), when coating metal parts, the volatile organic compound (VOC) content of the coating delivered to the applicator at the surface coating operation, identified as EUP-1, and EUP-2 shall each be limited to 3.5 pounds per gallon of coating, excluding water, for forced warm air dried coatings. ~~Alternatively, the coatings delivered to EUP-1 and EUP-2 shall be limited to 6.7 lbs of VOCs per gallon of solids, based on the daily weighted average of the coatings.~~

...

D.1.3 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

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(a) **In order to comply with D.1.1 and P**pursuant to 326 IAC 8-1-2(b), the large spray paint booth, identified as EUP-1, and small spray paint booth, identified as EUP-2, the VOC emissions shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon of coating solids, ~~allowed in (D.1.1).~~

This equivalency was determined by the following equation:

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

Where:

L = Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating;

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

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

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

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

- (b) The pounds of VOC per gallon of coating solids shall be limited to less than or equal to 6.67 pounds of VOC per gallon coating solids as applied.**

<b>IDEM Contact</b>
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- (a) Questions regarding this proposed Minor Source Operating Permit can be directed to Swarna Prabha at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5376 or toll free at 1-800-451-6027 extension (45376).
- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD) for a Registration Transitioning to a Minor  
Source Operating Permit (MSOP) with New Source Review (NSR)**

**Source Description and Location**

**Source Name:** Fairfield Manufacturing Company, Inc.  
**Source Location:** 2309 Concord Road, Lafayette, IN 47903  
**County:** Tippecanoe  
**SIC Code:** 3566  
**MSOP No.:** M157-28863-00007  
**Permit Reviewer:** Swarna Prabha

On January 8, 2010, the Office of Air Quality (OAQ) has received an application from Fairfield Manufacturing Company, Inc. related to the transition of a registration to a MSOP due to the additional emissions from the unpermitted emission units and continued operation of an existing stationary source. This source is a job shop, which custom manufactures steel gears and gear assemblies to specifications provided by clients.

**Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Registration No.: 79-07-91-0432, issued on January 18, 1988;
- (b) Registration No.: PC (79) 1681, issued on April 25, 1988;
- (c) Registration No.: 79-08-92-0437, issued on September 15, 1988; and
- (d) Registration No.: 157-7344-00007, issued on January 27, 1997.

**County Attainment Status**

The source is located in Tippecanoe County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Unclassifiable or attainment effective June 15, 2004, 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>.

*(Air Pollution Control Board; 326 IAC 1-4-80; filed Dec 26, 2007, 1:43 p.m.: 20080123-IR-326070308FRA)*

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM<sub>2.5</sub>

Tippecanoe 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. These rules became effective on 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 PM10 emissions as a surrogate for PM<sub>2.5</sub> emissions until 326 IAC 2-2 is revised.

(c) Other Criteria Pollutants

Tippecanoe County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

**Fugitive Emissions**

(a) The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-6.1 (Minor Source Operating Permits) applicability.

(b) This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, 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, Emission Offset, and Part 70 Permit applicability.

**Background and Description of Emission Units**

The Office of Air Quality (OAQ) has reviewed an application, submitted by Fairfield Manufacturing Company, Inc., on January 8, 2010, requesting transition from their existing Registration No. 157-7344-00007, issued on January 27, 1997 to a MSOP. The source has applied to include several existing unpermitted emission units: enclosed shot blasting operations, cold solvent cleaners, vapor degreasers, RX generators, emergency generators, heat treat ovens, bead cleaning operations, and welding operations. The Office of Air Quality (OAQ) has reviewed this application, the emissions are considered to be at a MSOP level due to the re-evaluation of the potential to emit of the entire source. Therefore, this permit is being reviewed pursuant to the requirements of 326 IAC 2-6 Minor Source Operating Permit (MSOP) (326 IAC 2-6).

The source consists of the following emission units:

(a) Paint Booths:

- (1) One (1) large spray paint booth, identified as EUP-1, constructed in 1997, equipped with two HVLP spray guns, maximum capacity of painting 40 steel gear housings per hour, controlled with a dry filter which exhausts to stack P-1, and a process throughput of 12,000 lbs/hr of metal containers.
- (2) One (1) small spray paint booth, identified as EUP-2, constructed in 1997, equipped with one HVLP spray gun, maximum capacity of painting 2 steel gear housing per hour, controlled with a dry filter which exhausts to stack P-2, and a process throughput of 2,000 lbs/hr of metal gears.

(b) Twelve (12) Shot Blasters:

- (1) One (1) wheelabrator shot blast operation, identified as EUSB1, constructed in 1964, equipped with a dust collector, DCSB1 for particulate control, with a maximum process throughput of 1,800 lbs per hour, and media 94,860 lbs/hr, exhausting through stack SSB1, combined throughput is equivalent to 48.33 tons per hour.
- (2) One (1) wheelabrator shot blast operation, identified as EUSB2, constructed in 1967, equipped with a dust collector, DCSB2 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 75,180 lbs/hr, exhausting through stack SSB2.
- (3) One (1) wheelabrator shot blast operation, identified as EUSB3, constructed in 1971, equipped with a dust collector, DCSB3 for particulate control, with a maximum process throughput of 2,400 lbs per hour, and media 123,660 lbs/hr, exhausting through stack SSB3.
- (4) One (1) wheelabrator shot blast operation, identified as EUSB4, constructed in 1974, equipped with a dust collector, DCSB4 for particulate control, with a maximum process throughput of 2,200 lbs per hour, and media 145,260 lbs/hr, exhausting through stack SSB4.
- (5) One (1) wheelabrator shot blast operation, identified as EUSB5, constructed in 1978, equipped with a dust collector, DCSB5 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 215,160 lbs/hr, exhausting through stack SSB5.
- (6) One (1) wheelabrator shot blast operation, identified as EUSB6, constructed in 1978, equipped with a dust collector, DCSB6 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 79,740 lbs/hr, exhausting through stack SSB6.
- (7) One (1) wheelabrator shot blast operation, identified as EUSB7, constructed in 1982, equipped with a dust collector, DCSB7 for particulate control, with a maximum process throughput of 1,800 lbs per hour, and media 245,820 lbs/hr, exhausting through stack SSB7.
- (8) One (1) wheelabrator shot blast operation, identified as EUSB8a, constructed in 1992, equipped with a dust collector, DCSB8 for particulate control, with a maximum process throughput of 1,800 lbs per hour, and media 75,180 lbs/hr, exhausting through stack SSB8.
- (9) One (1) BCast cleaning shot blast operation, identified as EUSB8b, constructed in 1967, equipped with a dust collector, DCSB8 for particulate control, with a maximum process throughput of 1,250 lbs per hour, and media 43,260 lbs/hr, exhausting through stack SSB8.
- (10) One (1) wheelabrator shot blast operation, identified as EUSB9, constructed in 2005, equipped with a dust collector, DCSB9 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 213,480 lbs/hr, exhausting through stack SSB9.
- (11) One (1) swing table, identified as EUSB10, constructed in 1999, equipped with a dust collector, DCSB10 for particulate control, with a maximum process throughput of 1,600 lbs per hour, and media 80,820 lbs/hr, exhausting inside.
- (12) One (1) blast belt operation, identified as EUSB11, constructed in 1999, equipped with a dust collector, DCS11 for particulate control, with a maximum process throughput of 2,600 lbs per hour, and media 106,020 lbs/hr, exhausting through stack SSB11.

NOTE: The potential to emit of PM, PM10 and PM2.5 for the shotblast units is determined based on the site specific emissions, which was developed by the source based on the total collected particulates in the dust collectors. The dust collected does not include the shots used in the

operation. The Conditions related to the Preventive Maintenance Plan, Compliance determination and compliance determination requirements are not included

- (c) Two (2) glass bead polishing and bead cleaning operations, collectively identified as EUPB1, constructed in 1995, comprised of two glass bead machines with maximum capacity of 60 lbs of metal gear assembly per hour each, and bead media 8658 lbs/hr each, with particulate controlled by dust collector, exhausting internally.
- (d) Two (2) polish lathes and grinding and drilling operation to polish gear assembly using sand paper, collectively identified as EUBP1, constructed in 1993, maximum capacity of 200 lbs per hour of metal gears each, equipped with small hood filters, exhausting inside.

NOTE: Source claims that there are negligible emissions from grinding and drilling operation, most of the dust gets caught in the emery paper or polished cloth.

- (e) Ten (10) wet type integrated machining operations, identified as EUIM-1 through EUIM-10, constructed in 2006 through 2008, each equipped with a mist collector to control oil mist generated by the process, maximum metal process throughput of 204.93 lbs/hr each, and exhausting internally.

NOTE: The experiment was conducted using one of the integrated machines that was machining a large hubbed gear because it generates the largest volume of mist. Typically, a hose from the bottom of the mist collector returns the liquid to the sump of the machine. For the experiment, the hose was disconnected from the sump of the machine and placed in a plastic bucket. The experiment was conducted for 53 hours of continuous operation. After the experiment, the total volume of the material collected was determined. The two constituents of the material collected were 15-17wt% Trimsol e-206 and distilled water. A refractometer was used to determine the concentration of the collected material. It was determined that the collected material was 96% Trimsol e-206. There are no VOC emissions from this process.

- (f) RX Generators with heat treat ovens:

- (1) Eight (8) RX Generators, identified as EURX1 through EURX8, constructed in 1965 through 2008, each processing natural gas at a feed rate of 395 cf/hr to be converted into 1,111 cubic feet of blanket gas per hour, used in the carburization heat treat ovens to treat metal gear assembly and subsequently combusted, identified as follows:

RX Generator	Associated Burner MMBtu/hr	Stack
EURX1	1.13	SRX1
EURX2	1.54	SRX1
EURX3	1.54	SRX3
EURX4	1.54	SRX4
EURX5	1.54	SRX5
EURX6	1.54	SRX1
EURX7	1.54	SRX4
EURX8	1.54	SRX1

NOTE: The source claims that the RX generators do not function as emergency generators. They are used to treat metal gears, and heat treat ovens are considered integral part of the generators. The RX generators are used to obtain the atmosphere necessary for heat treat the metal parts. CO is a by-product of the reaction, and combustion of the CO in the heat treat furnaces is considered integral to the process. The RX generators create CO emissions that would create hazardous indoor quality exposure issues for employees if engineering controls are not implemented. The heat treat furnaces

combust the CO emissions to reduce the CO emissions to safe levels. There are interlock in place that will not allow the RX generators to operate without the heat treat furnaces in operation.

- (2) Natural gas fired heat treat ovens with a maximum heat input capacity of less than 10.0 MMBtu per hour each, exhausting inside.

Combustion units	No. of Units	MMBtu/hr
Super 36 Allcase Furnace #1, #2, #4	3	5.10
Super 36 Allcase Furnace #3	1	6.73
Auto Hardeners #2, #3, #4	3	1.00
Gas & Electric Carburizer #8	1	3.06
Gas & Electric Carburizer #9	1	5.00
Gas Carburizers #3, #4	2	4.59
Gas Carburizer #5	1	5.97
Homo Carb Draw #1 West, #2 East	2	1.25
Rotary Hardening Furnace #6	1	1.00
Small Allcase Furnace #1	1	1.00
Small Allcase Furnace#2	1	1.00
Small Allcase Furnace#3	1	1.00
Batch Anneal- Furnace	1	0.50
Lead Pot	1	1.15
LT Draw Furance #1,#2,#3,#4	4	0.50
Nitrogen Generator	1	0.37
Program Draw #1 East and #2 west	2	1.00
Trinider Furance	1	2.35
Draw Furnace #1 through #7	7	0.353

- (3) Electric heat treat ovens associated with carburizing, used to combust CO generated by the RX generators, exhausting inside.

- (A) One (1) Electric carburizer, identified as #6.
- (B) One (1) Electric carburizer, identified as #7.
- (C) Two (2) Electric Homo Carb.
- (D) Electric Roller Hearth.
- (E) Nitrider Furnace
- (F) Cycle Annealer #1 and #2

NOTE: There are no emissions from these units because they are electric powered.

- (g) Boilers:

- (1) One (1) natural gas-fired boiler, identified as EUB1, constructed in 1967, rated at 0.918 MMBtu/hr.
- (2) One (1) natural gas-fired boiler, identified as EUB2, constructed in 1995, rated at 1.22 MMBtu/hr.

(h) Emergency generators used for emergency purposes:

- (1) One (1) 426 hp natural gas-fired emergency generator, constructed in 1993, exhausting outside.

Under the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) the 426 hp natural gas-fired emergency generator is considered an existing affected facility because it was constructed before June 12, 2006.

- (2) One (1) diesel air compressor, identified as EG8, constructed in 1996, with a maximum power output of 125 horsepower and maximum operating hours of 500 hrs/yr, and exhausting through SEG7.

Under the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) the diesel air compressor EG8 is considered existing affected facilities because it was constructed before June 12, 2006.

- (3) Six (6) natural gas-fired, electric emergency generators, identified as EG1 through EG7, constructed in 2005, with a maximum power output of 15 KW and maximum operating hours of 500 hrs/yr, and exhausting through SEG1 through SEG7.

Under the NESHAP for Stationary Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ) the six (6) emergency generators, identified EG1 through EG7 are considered existing affected facilities because each were constructed before June 12, 2006.

(i) Miscellaneous Combustion Units:

- (a) Miscellaneous Natural gas-fired space heaters, and part washers with heat input capacity less than 10 MMBtu/hr each.

Combustion units	No. of Units	MMBtu/hr, each
Roof Mount Furnaces	13	3.25
Parts Washer	1	0.80
Ransohoff Parts Washer	1	1.50
Continental Parts Washer	1	1.50
Infrared Tubular Heaters - Heat Treat	4	2.0
Infrared Tubular Heaters - Receiving	15	0.1
Heat Towers in Assy Bldg.	3	5.25
Radiant Heaters in Chjip Room	2	0.20
Draw Furnaces	7	0.5

- (j) One (1) Nickel electroplating station, using dip coating and brushing the solution onto the metal gear assemblies, maximum capacity 60 lbs of metal parts/hr.

NOTE: The source plates nickel onto the metal surfaces by passing current through sponge applicator. Either a small bottle or tube is connected to the sponge that supplies to solution to the sponge for application. There are no tanks associated with the plating operation and per EPA guidance it is considered a bench scale operation. The polishing operations are conducted using a polishing cloth and polishing by hand, therefore there are negligible particulates emitted from this operation. The PM, PM10, PM2.5 emissions from the nickel plating polishing operation have been assumed negligible.

(k) Degreasers:

- (1) Sixty-six (66) cold solvent cleaning parts washers, constructed in or 1990.
  - (2) One (1) open top vapor degreaser, identified as EUVD, installed in 2006, with a surface area of 30 ft.<sup>2</sup>
- (l) One (1) TIG Welding Operation, with a maximum capacity of 12 gear assemblies per hour, with a maximum throughput of 12,000 pounds per hour of gears, and less than 625 pounds of rod per day, exhausting indoors.

<b>Unpermitted Emission Units and Pollution Control Equipment</b>
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The following is the list of unpermitted emission units and pollution control devices which are included above:

(a) Shot Blasters:

- (1) One (1) wheelabrator shot blast operation, identified as EUSB6, constructed in 1978, equipped with a dust collector, DCSB6 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 79,740 lbs/hr, exhausting through stack SSB6.
  - (2) One (1) wheelabrator shot blast operation, identified as EUSB7, constructed in 1982, equipped with a dust collector, DCSB7 for particulate control, with a maximum process throughput of 1,800 lbs per hour, and media 245,820 lbs/hr, exhausting through stack SSB7.
  - (3) One (1) wheelabrator shot blast operation, identified as EUSB8a, constructed in 1992, equipped with a dust collector, DCSB8 for particulate control, with a maximum process throughput of 1,800 lbs per hour, and media 75,180 lbs/hr, exhausting through stack SSB8.
  - (4) One (1) BCast cleaning shot blast operation, identified as EUSB8b, constructed in 1967, equipped with a dust collector, DCSB8 for particulate control, with a maximum process throughput of 1,250 lbs per hour, and media 43,260 lbs/hr, exhausting through stack SSB8.
  - (5) One (1) wheelabrator shot blast operation, identified as EUSB9, constructed in 2005, equipped with a dust collector, DCSB9 for particulate control, with a maximum process throughput of 2,800 lbs per hour, and media 213,480 lbs/hr, exhausting through stack SSB9.
  - (6) One (1) swing table, identified as EUSB10, constructed in 1999, equipped with a dust collector, DCSB10 for particulate control, with a maximum process throughput of 1,600 lbs per hour, and media 80,820 lbs/hr, exhausting inside.
  - (7) One (1) blast belt operation, identified as EUSB11, constructed in 1999, equipped with a dust collector, DCS11 for particulate control, with a maximum process throughput of 2,600 lbs per hour, and media 106,020 lbs/hr, exhausting through stack SSB11.
- (b) Two (2) glass bead polishing and bead cleaning operations, collectively identified as EUBP1, constructed in 1995, comprised of two glass bead machines with maximum capacity of 60 lbs of metal gear assembly per hour each, and bead media 8658 lbs/hr each, with particulate controlled by dust collector, exhausting internally.
- (c) Two (2) polish lathes and grinding and drilling operation to polish gear assembly using sand paper, collectively identified as EUPB1, constructed in 1993, maximum capacity of 200 lbs per hour of metal gears each, equipped with small hood filters, exhausting inside.
- (d) Ten (10) wet type integrated machining operations, identified as EUIM-1 through EUIM-10,

constructed in 2006 through 2008, each equipped with a mist collector to control oil mist generated by the process, maximum metal process throughput of 204.93 lbs/hr each, and exhausting internally.

(e) RX Generators with heat treat ovens:

- (1) Eight (8) RX Generators, identified as EURX1 through EURX8, constructed in 1965 through 2008, with a reaction gas rate of 1,111 cubic feet of CO per hour and a natural gas rate of 395 cubic feet per hour to treat metal gear assembly. Units EURX1, EURX2, EURX6 and EURX8 exhausting to stack SRX1; unit EURX3 exhausting to stack SRX3, units EURX4 and EURX7 exhausting to SRX4 and unit EURX5 exhausting to stack SRX5.
- (2) Natural gas fired heat treat ovens associated with carburizing, with a maximum heat input capacity of less than 10.0 MMBtu per hour each, exhausting inside.

Combustion units	No. of Units	MMBtu/hr
Super 36 Allcase Furnace #1, #2, #4	3	5.10
Super 36 Allcase Furnace #3	1	6.73
Auto Hardeners #2, #3, #4	3	1.00
Gas & Electric Carburizer #8	1	3.06
Gas & Electric Carburizer #9	1	5.00
Gas Carburizers #3, #4	2	4.59
Gas Carburizer #5	1	5.97
Homo Carb Draw #1 West, #2 East	2	1.25
Rotary Hardening Furnace #6	1	1.00
Small Allcase Furnace #1	1	1.00
Small Allcase Furnace#2	1	1.00
Small Allcase Furnace#3	1	1.00
Batch Anneal- Furnace	1	0.50
Lead Pot	1	1.15
LT Draw Furnace #1,#2,#3,#4	4	0.50
Nitrogen Generator	1	0.37
Program Draw #1 East and #2 west	2	1.00
Trinider Furnace	1	2.35
Draw Furnace #1 through #7	7	0.353

- (3) Electric heat treat ovens associated with carburizing, used to combust CO generated by the RX generators, exhausting inside.
  - (A) One (1) Electric carburizer, identified as #6.
  - (B) One (1) Electric carburizer, identified as #7.
  - (C) Two (2) Electric Homo Carb.
  - (D) Electric Roller Hearth.
  - (E) Nitrider Furnace
  - (F) Cycle Annealer #1 and #2.

(f) Boilers:

- (a) One (1) natural gas-fired boiler, identified as EUB1, constructed in 1967, rated at 0.918 MMBtu/hr
- (b) One (1) natural gas-fired boiler, identified as EUB2, constructed in 1995, rated at 1.22 MMBtu/hr.
- (g) One (1) Nickel electroplating station, using dip coating and brushing the solution onto the metal gear assemblies, maximum capacity 60 lbs of metal parts/hr.
- (h) Miscellaneous Natural gas-fired space heaters, and part washers with heat input capacity less than 10 MMBtu/hr each.

Combustion units	No. of Units	MMBtu/hr, each
Roof Mount Furnaces	13	3.25
Parts Washer	1	0.80
Ransohoff Parts Washer	1	1.50
Continental Parts Washer	1	1.50
Infrared Tubular Heaters - Heat Treat	4	2.0
Infrared Tubular Heaters - Receiving	15	0.1
Heat Towers in Assy Bldg.	3	5.25
Radiant Heaters in Chip Room	2	0.20
Draw Furnaces	7	0.5

(i) Degreasers:

- (1) Sixty-six (66) cold solvent cleaning parts washers, constructed in or 1990.
- (2) One (1) open top vapor degreaser, identified as EUVD, installed in 2006, with a surface area of 30 ft.<sup>2</sup>
- (j) One (1) TIG Welding Operation, with a maximum capacity of 12 gear assemblies per hour, with a maximum throughput of 12,000 pounds per hour of gears, and less than 625 pounds of rod per day, exhausting indoors.

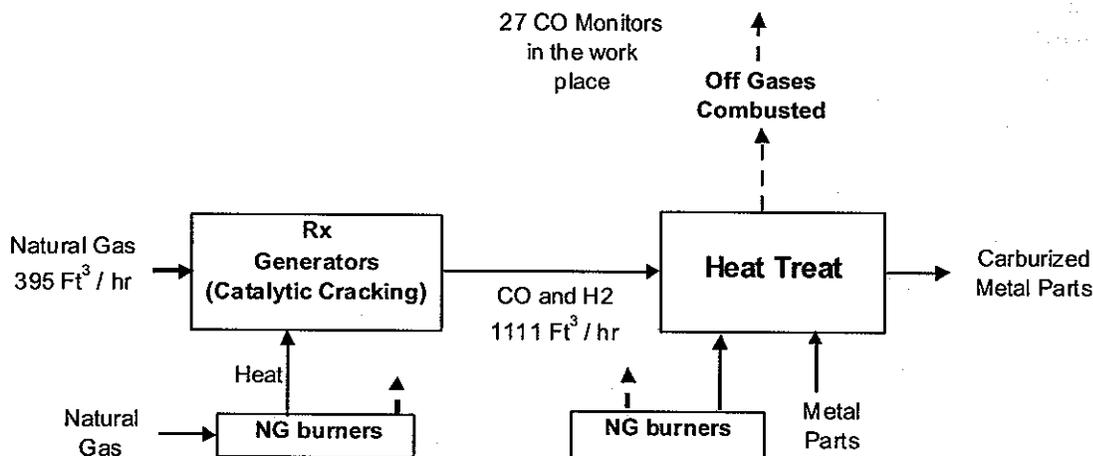
**“Integral Part of the Process” Determination**

The applicant has submitted the following information to justify why the CO emissions generated from the eight (8) RX generators are combusted in the heat treat ovens and the system should be considered an integral part of the process. During the metal treating process, the CO emissions are generated due to the reaction gas rate and atmospheric gases, and these emissions are combusted using the heat treat ovens.

- (a) There are interlocks in place that can not be disabled and will not allow RX Generators to operate without the heat treat furnaces in operation.
- (b) The heat treat process requires that the parts be exposed to a carbon Monoxide (CO) and hydrogen blanket gas. These gases react with the iron at the surface of the part to alter the bonds of the iron molecules and harden the surface. This is referred to as a carburization process, natural gas is fed in

to the RX generators. The RX generators provide the dissociated natural gas (as CO and hydrogen) to the carburization heat treat processes. This blanket gas is subsequently combusted at the heat treat ovens and its combustion is integral to the operation of the heat treat ovens. The CO is burned off after it exits the heat treat ovens. Pilot lights are provided at all openings of the oven to insure that this burn off occurs. The temperature at the RX generators is monitored to ensure that the generators are working properly. In addition, there are 27 locations in the facility which are monitored to ensure that the gases exiting the furnaces are being combusted.

- (c) The eight (8) RX generators create CO emissions that would create hazardous indoor air quality exposure issues for employees if engineering controls are not implemented. The block diagram below shows the carburization process.



IDEM, OAQ has evaluated the information submitted and agrees that the heat treat ovens should be considered an integral part of the process. This determination is based on the fact that the interlocks in place will not allow RX generators to operate the heat treat units. The CO is introduced in the system to treat the metal parts. Therefore, the permitting level will be determined using the potential to emit after the heat treat units. Operating conditions in the proposed permit will specify that these heat treat units shall operate at all times when the RX generators are in operation.

#### Enforcement Issues

IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

As part of this TSD, the potential to emit air pollutants was reevaluated (see Emission Calculations and Permit Level Determination – MSOP). Based on the updated emission calculations, the source has the potential to emit air pollutants greater than the Registration threshold levels under 326 IAC 2-6. The source will be issued a Minor Source Operating Permit (MSOP).

#### Emission Calculations

The source has requested that IDEM allow the use of a source specific emission factor, developed through an unofficial in-house mass balance study performed by the source from twelve (12) shot blasting operations, for estimating Particulate Matter (PM) emissions from the twelve (12) shot blaster units.

IDEM agrees with this request. The emission factor for PM is based on assumptions formed from a recent mass balance study performed by the source. IDEM has reviewed the study methodology and determined that the source specific emission factor be allowed. However, IDEM has determined that testing before control will be

required to confirm the validity of the source specific emission factor, because without a valid test, IDEM does not have adequate information to conclude that the twelve (12) shot blaster system actually operates in compliance with 326 IAC 2-6. Additionally, IDEM will require the source to operate the control device at all times the emission unit is in operation, and will require that the source perform monitoring of the control device in order to ensure that the device is in proper working order.

In accordance with Air-014-NPD, as revised on March 9, 1999, and pursuant to 326 IAC 2-5 the source specific alternative emission factors are used from all the twelve (12) the shot blasting operations at this facility. The overall source-wide emissions of particulates, PM10 and PM2.5 must be less than 100 tons per year before control, to be permitted as an MSOP source. Any change that would increase the emissions from these operations such that the potential to emit PM10 and PM2.5 each, of the entire source is greater than the Part 70 thresholds requires prior approval from IDEM.

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – MSOP**

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	218.53
PM10 <sup>(1)</sup>	36.79
PM2.5	36.79
SO <sub>2</sub>	1.10
NO <sub>x</sub>	70.18
VOC	88.70
CO	59.79

(1) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".

HAPs	Potential To Emit (tons/year)
Xylene	0.45
MIBK	0.52
n-Butanol	0.26
Ethane	0.04
Hexane	1.24
Hcl	4.5E-04
<b>TOTAL HAPs</b>	<b>3.02</b>

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of PM10 and PM2.5 are each less than one hundred (100) tons per year, but greater than or equal to twenty-five (25) tons per year. The PTE of all other regulated criteria pollutants are less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. A Minor Source Operating Permit (MSOP) will be issued.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.

**Federal Rule Applicability Determination**

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard for Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Unit is not subject to the New Source Performance Standards, 326 IAC 12, 40 CFR 60.40, 40 CFR 60.40a, 40 CFR 60.40b and 40 CFR 60.40c, Subparts D, Da, Db and Dc because natural gas-fired Boilers, EUB1 and EUB2 each has a maximum heat input capacity of less than the threshold of 10 MMBtu per hour.
- (b) Emergency Generators 426 hp, EG8
- (1) The diesel fired electric emergency generator, identified as EG8, 426 hp natural gas-fired emergency generator each are not subject to the requirements of the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60.4200, Subpart IIII) because construction of these units commenced before 2007.
- (2) The diesel fired electric emergency generator, identified as EG8 and, 426 hp natural gas-fired emergency generator are not subject to the requirements of the New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60.4230, Subpart JJJJ) because they are not a Spark Ignition Internal Combustion engines.
- (3) The natural gas-fired 426 hp natural gas-fired emergency generator is not subject to (40 CFR 60.4230, Subpart JJJJ) because it was constructed prior to June 12, 2006.
- (c) Six (6) natural gas-fired electric emergency generators EG1 through EG7 emergency generators:
- (1) The six (6) natural gas-fired electric emergency generators, identified as EG1 through EG7 are not subject to the requirements of the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60.4200, Subpart IIII) because they are not Compression Ignition.
- (2) The six (6) natural gas-fired electric emergency generators, identified as EG1 through EG7, are not subject to the requirements of the New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60.4230, Subpart JJJJ) because they were installed before June 12, 2006.
- (d) This source is not subject to the requirements of the New Source Performance Standards (NSPS), 40 CFR 60, Subpart LL (Standards of Performance for Metallic Mineral Processing Plants), (40 CFR Part 60.380-60-386). This rule applies to affected facilities in metallic mineral processing plants, constructed after August 24, 1982, where metallic mineral processing plants are defined as any combination of equipment that produces metallic mineral concentrates from ore. The rule further defines metallic mineral concentrates as material containing metallic compounds in concentrations higher than naturally occurring in ore but requiring additional processing to isolate pure metal, and also containing at least one of the following metals (aluminum, copper, gold, iron, lead, molybdenum, silver, titanium, tungsten, uranium, zinc and zirconium) in any of its oxidation states and at a concentration that contributes to the concentrate's commercial value. This plant does not meet the definition of a metallic mineral processing plant per 40 CFR 60.380, and therefore is not subject to this rule.
- (e) There are no New Source Performance Standards (NSPS)(40 CFR Part 60) included for this permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (f) The one (1) 426 hp natural gas-fired emergency generator, one (1) 125 hp diesel air compressor EG8, six (6) natural gas-fired electric emergency generators EG1 through EG7, are subject to the requirements of the 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air

Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (326 IAC 20-82), because each is considered a existing stationary reciprocating internal combustion engine (RICE) (manufactured before June 12, 2006) at an area source of hazardous air pollutants (HAP). The 125 hp diesel fired compressor, EG8 was manufactured in 1996, and six natural gas-fired emergency generators EG1 through EG7 were manufactured in 2005.

The one (1) 426 hp natural gas-fired emergency generator, one (1) 125 hp diesel air compressor EG8, and six (6) natural gas-fired electric emergency generators EG1 through EG7, are subject to the following applicable portions of NESHAP for existing commercial emergency stationary reciprocating internal combustion engines (constructed before June 12, 2006) at an area source of hazardous air pollutants:

- 63.6585(a), (c), (d)
- 63.6590(a)(1)(iii)
- 63.6603(a)

Pursuant to 40 CFR 63.6590(b)(3), 426 hp natural gas-fired emergency generator, diesel air compressor EG8, and six (6) natural gas-fired electric emergency generators EG1 through EG7 do not have to meet the requirements of 40 CFR 63, Subpart A (General Provisions), since each is considered existing institutional emergency stationary RICE at an area source of HAP emissions.

- (g) This source is not subject to the requirements 40 CFR 63 Subpart T (National Emission Standards for Hazardous Air Pollutants for Halogenated Solvent Cleaning) because the source is not equipped with a cleaning machine.
- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for surface coating of Miscellaneous Metal Parts and Products, 40 CFR 63, Subpart MMMM (326 IAC 20-80-1) are not included in the permit, since this source is not a major source of HAPs as defined in 40 CFR 63.
- (i) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), 40 CFR 63, 11169 Subpart HHHHHH, surface coating or paint stripping and miscellaneous surface coating operations at area source (40CFR Part 63.11169), because this source is not involved in the use of chemical strippers that contain methyl chloride (MeCl) in paint removal process, and the surface coating used at this source do not contain chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd).
- (j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 63.11514, Subpart XXXXXX (National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories ) are not included in the permit, because this source does not contain materials that contain or have the potential to emit metals, defined to be the compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), in the amounts greater than or equal to 0.1 percent by weight (of the metal), and materials that contain manganese in amounts greater than or equal to 1.0 percent by weight (of the metal).
- (k) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 63.11514, Subpart WWWW (National Emission Standards for Hazardous Air Pollutants Area Source Standards for Plating and Polishing Operations) are not included in the permit, because this source contain small bottle in the nickel plating operation and it is considered a bench-scale operation, which is small enough to be performed on a bench, table or similar structure so that the equipment is not directly contacting the floor.
- (l) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPS) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

### Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

### State Rule Applicability Determination

The following state rules are applicable to the proposed revision:

#### 326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))

MSOP applicability is discussed under the Permit Level Determination – MSOP section above.

#### 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))

This source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit of all attainment regulated pollutants are less than 250 tons per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

#### 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.

#### 326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

#### 326 IAC 5-1 (Opacity Limitations)

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:

- (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.

#### 326 IAC 6-4 (Fugitive Dust Emissions Limitations)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.

#### 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

The source is not subject to the requirements of 326 IAC 6-5, because the potential fugitive particulate emissions are less than 25 tons per year.

**State Rule Applicability - Paint booths EUP-1 and EUP-2**

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**

Pursuant to 326 IAC 6-3-2(d), particulate emissions from the paint shop spray booths EUP-1 and EUP-2 must be controlled by dry filters, waterwash, or an equivalent control device and the control device must be operated in accordance with manufacturer's specifications. The source shall operate the dry filters in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

- (1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.
- (2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

**326 IAC 8-2-9 (Miscellaneous metal and plastic parts coating operation)**

Pursuant to 326 IAC 8-2-1 (Applicability), this rule applies to facilities constructed after July 1, 1990 located in any county, and with actual VOC emissions of greater than fifteen (15) pounds per day before add-on controls. This source performs miscellaneous metal coating operations as described in 326 IAC 8-2-1(a)(4) and has actual emissions of greater than fifteen (15) pounds of VOC per day before add-on controls and is therefore subject to 326 IAC 8-2-9.

Unit ID	Date of Construction	Metal coating VOC emissions lbs/day	Metal coating 326 IAC 8-2-9 applicability July 1, 1990
Spray Booths- EUP-1 and EUP-2	1997	>15 lbs/day each	yes

- (a) The paint booths, identified as EUP-1 and EUP-2 were constructed after July 1, 1990 and have actual emissions greater than fifteen (15) pounds of VOC per day. Therefore these paint booths are subject to the requirements of 326 IAC 8-2-9. Pursuant to 326 IAC 8-2-9, the volatile organic compound (VOC) content of coating delivered to the applicators at EUP-1 and EUP-2 paint booths shall each be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings. Alternatively, the coatings delivered to EUP-1 and EUP-2 shall be limited to 6.7 lbs of VOCs per gallon of solids, based on the daily weighted average of the coatings.
- (b) Pursuant to 326 IAC 8-1-2(b), the paint booths, identified as EUP-1 and EUP-2, the VOC emissions shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon of coating solids, allowed in (a).

This equivalency was determined by the following equation:

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

$$E = [3.5 / (1 - 3.5/7.36)] = 6.7 \text{ lbs VOC/gal solids}$$

Where:

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

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

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

- (c) Pursuant to 326 IAC 8-2-9(f), work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not limited to, the following:
- (1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.
  - (2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.
  - (3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.
  - (4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.
  - (5) Minimize VOC emissions from the cleaning application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

The requirements of 326 IAC 8-1-6 do not apply, because 326 IAC 8-2-9 already applies to the coating process.

**State Rule Applicability - Twelve (12) Shot blasters, Two (2) glass bead polishing and cleaning, Two (2) polish lathes and grinding and drilling operations.**

**326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)**

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rates from each of the shot blast facilities shall not exceed the pound per hour limitations listed in the table below:

Unit ID / Control Device <b>Shot blasters</b>	Process Weight Rate (ton / hour)	Allowable Particulate Emission Limits (pound / hour)
	P	E
EUSB1/DCSB1	48.33	44.26
EUSB2/DCSB2	38.99	42.29
EUSB3/DCSB3	63.03	46.76
EUSB4/DCSB4	73.73	48.26
EUSB5/DCSB5	108.98	52.14
EUSB6/DCSB6	41.27	42.8
EUSB7/DCSB7	123.81	53.44
EUSB8a/DCSB8	38.39	42.15
EUSB8b/DCSB8	22.255	37.36
EUSB9/DCSB9	108	52.0
EUSB10/DCSB10	41.20	42.79
EUSB11/DCSB11	54.31	45.35

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

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour and  
 P = process weight rate in tons per hour

All respective control devices listed above shall be in operation at all times the abrasive blasting operations are in operation in order to comply with this limit. The Permittee shall operate the control device in accordance with manufacture's specifications.

- (b) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the two glass bead polishing and cleaning operation shall not exceed 10.99 pounds per hour each, when operating at a process weight rate of 8,658 pounds per hour of bead media and 60 pounds per hour of metal throughput per hour each, which is equivalent to 4.36 tons per hour throughput each machine.

NOTE: Source claims that the two glass bead polishing and cleaning operations have equal maximum process throughput.

- (c) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the two (2) polish lathes and grinding and drilling operations shall not exceed 0.89 pounds per hour each when operating at a process weight rate of 0.103 tons per hour each, which is equivalent to 204.93 pounds per hour each.

The pound per hour limitation for (b) and (c) was calculated with the following equation:

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

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

Based on calculations, the dust collectors in bead cleaning operation are not needed to comply with this limit. The potential particulate emissions from each of the bead cleaning operation are 0.027 lbs/hr with out control, and are less than allowable. Also, the dust from the polish lathes and grinding operation is negligible.

**326 IAC 2-6.1-5 (Emission Limitations for PM10 and PM2.5)**

Pursuant to Non-rule Policy Document titled "Approval and Validation Alternate Emission Factors" (Air-014-NPD), and in order to verify compliance with 326 IAC 2-6.1-5, the PM10 and PM 2.5 emission rates before control from each of the shot blast facilities shall not exceed the pound per hour limitations listed in the table below:

Unit ID / Control Device Shot blasters	Process Weight Rate (ton / hour)	[326 IAC 2-6.1] *Emission Limits (pound / hour)	[326 IAC 2-6.1] Emission Limits (pound / hour)
		PM10	PM2.5
EUSB1/DCSB1	48.33	0.029	0.029
EUSB2/DCSB2	38.99	0.0235	0.0235
EUSB3/DCSB3	63.03	0.038	0.038
EUSB4/DCSB4	73.73	0.046	0.046
EUSB5/DCSB5	108.98	0.066	0.066
EUSB6/DCSB6	41.27	0.025	0.025
EUSB7/DCSB7	123.81	0.075	0.075
EUSB8a/DCSB8	38.39	0.023	0.023
EUSB8b/DCSB8	22.255	0.013	0.013
EUSB9/DCSB9	108	0.065	0.065
EUSB10/DCSB10	41.20	0.025	0.025
EUSB11/DCSB11	54.31	0.033	0.033

\* Based on the site specific particulate (PM) emissions from all the twelve shot blasters with out control are 202 tons /yr. The applicant assumed PM10 emissions to be one tenth of PM which is equivalent to 20.2 tons/yr or 4.61 lbs/hr without control from all twelve shot blasters. The PM10 emissions for each blaster are calculated based on the ratio of the process throughput of the material and the media combined for each blasting operation. There is no emission factor in AP-42 for PM2.5, therefore PM2.5 is assumed equal to PM10.

**State Rule Applicability Emergency Generators- 426 hp, EG8, EG1 through EG7**

**326 IAC 4-2-2 (Incinerators)**

The natural gas-fired emergency generators and diesel generators are not incinerators, as defined by 326 IAC 1-2-34, since none of them burns waste substances. Therefore, the emergency generators are not subject to 326 IAC 4-2-2.

**326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)**

The natural gas-fired emergency generators and diesel generators are not subject to the requirements

326 IAC 6-2 as they are not a source of indirect heating.

**326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)**

Pursuant to 326 IAC 6-3-1(b)(14), the natural gas-fired emergency generators and diesel generators are exempt from the requirements of 326 IAC 6-3, because each has a potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

**326 IAC 7-1 (Sulfur dioxide emission limitations: applicability)**

The natural gas-fired emergency generators and diesel generators are not subject to the requirements of 326 IAC 7-1, because the potential and the actual emissions of sulfur dioxide are less than twenty-five (25) tons per year and ten (10) pounds per hour, respectively.

**326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)**

Pursuant to 326 IAC 8-1-6, this rule applies to new facilities, which have potential VOC emissions of 25 tons or greater per year, located anywhere in the state, which are not otherwise regulated by other provisions of 326 IAC 8. The requirements of 326 IAC 8-1-6 are not applicable to the natural gas-fired emergency generators and diesel generators, since each does not have the potential to emit VOC greater than twenty-five (25) tons per year.

**326 IAC 9-1-1 (Carbon Monoxide Emission Limits)**

The diesel air compressors, 125 hp and EG8 are not subject to 326 IAC 9-1-1 (Carbon Monoxide Emission Limits) because there is no applicable emission limit for the source under 326 IAC 9-1-2.

**326 IAC 10-1-1 (Nitrogen Oxides Control)**

The diesel air compressors, 125 hp and EG8 are not subject to 326 IAC 10-1-1 (Nitrogen Oxides Control) because the source is not located in Clark or Floyd counties.

**326 IAC 10-5-1 (Nitrogen Oxide Reduction Program for Internal Combustion Engines (ICE))**

The diesel air compressors, 125 hp and EG8 are not subject to 326 IAC 10-5-1 (Nitrogen Oxide Reduction Program for Internal Combustion Engines (ICE)) because it is not large NOx SIP Call engines, as defined in 326 IAC 10-5-2(4).

**State Rule Applicability - Natural Gas Boilers EUB1 and EUB2**

**326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating)**

The 0.918 MMBtu per hour boiler, EUB1 is subject to 326 IAC 6-2-3 because it is an indirect heating facility that was in operation prior to September 21, 1983. Pursuant to this rule, particulate emissions from indirect heating facilities existing and in operation before September 21, 1983, shall be limited by the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

Q = 0.918 MMBtu/hr  
C = 50 ug/m<sup>3</sup>  
a = 0.67 for Q less than or equal to 1,000 MMBtu/hr  
h = 20 ft  
N = 1

$$Pt = 9.34 \text{ lb/MMBtu}$$

The allowable particulate emission rate from the 0.918 MMBtu per hour boiler, based on the above equation, is 9.34 pounds per MMBtu heat input. However, pursuant to 326 IAC 6-2-3(d), the allowable PM emission rate from the boiler, existing and in operation before June 8, 1972, is 0.8 pounds per MMBtu heat input. Using the emission factor and heating value provided, the following conclusions can be made:

$$\begin{aligned} \text{PM Emissions} &= 1.9 \text{ lb PM/MM SCF} \times \text{MM SCF} / 1,020 \text{ MMBtu} \\ &= 0.0019 \text{ lbs/MMBtu} \end{aligned}$$

The 0.0019 lbs/MMBtu emission rate estimated using the AP-42 emission factor is less than the 0.8 lb/MMBtu limit. Therefore, the boiler is able to comply with 326 IAC 6-2-3.

**326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)**

The 1.22 MMBtu per hour boiler, EUB2, constructed in 1992 is subject to 326 IAC 6-2-4 because it is an indirect heating facility that was in operation after September 21, 1983 shall be limited by the following equation:

$$Pt = 1.09/Q^{0.26}$$

where Pt = pounds of particulate matter emitted per million Btu (MMBtu) heat input,  
Q = Total source maximum operation capacity rating in MMBtu/hr, (Q = 0.918 + 1.21 = 2.128 MMBtu/hr)

The allowable particulate emission rate from the 2.128 MMBtu per hour boilers, based on the above equation, is 0.90 pounds per MMBtu heat input. However, pursuant to 326 IAC 6-2-3(d), the allowable PM emission rate from the boiler, existing and in operation after September 21, 1983, is 0.6 pounds per MMBtu heat input. Using the emission factor and heating value provided, the following conclusions can be made:

Using the emission factors and heating values provided, the following conclusions can be made:

$$\begin{aligned} \text{PM Emissions} &= 1.9 \text{ lb PM/MM SCF} \times \text{MM SCF} / 1,020 \text{ MMBtu} \\ &= 0.0019 \text{ lbs/MMBtu} \end{aligned}$$

The 0.0019 lbs/MMBtu emission rate estimated using the AP-42 emission factor is less than the 0.6 lb/MMBtu limit. Therefore, the boiler is able to comply with 326 IAC 6-2-4.

**State Rule Applicability - Natural Gas space heaters, Furnaces and RX Generator units:**

**326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)**

The natural gas-fired space heaters and furnaces, are each not subject to 326 IAC 6-2 as they are not sources of indirect heating.

**326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)**

Pursuant to 326 IAC 6-3-1(b)(14), the source-wide space heaters are not subject to the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) because they each have the potential to emit particulate matter less than 0.551 pounds per hour each.

**326 IAC 7-1 (Sulfur dioxide emission limitations: applicability)**

The space heaters, RX generators and furnaces are not subject to the requirements of 326 IAC 7-1, because the potential and the actual emissions of sulfur dioxide are less than twenty-five (25) tons per year and ten (10) pounds per hour each.

**326 IAC 9-1-2 (Carbon monoxide emission limits)**

The RX generators are not subject to this the requirements of 326 IAC 9-1-2, because these are not refuse burning equipment or refuse incinerators.

**NOTE:** The source claimed that the CO emissions from the RX generators were determined using the maximum CO Reaction Gas Rate and the CO emission Factor. The CO emission Factor is determined using the percentage of CO in the reaction gas and the CO conversion factor of 77,871 lb/MMcf. The CO emissions generated from the RX Generators are then combusted using the heat treat furnaces. The source assumed that 99.5% of the CO is destructed in the combustion process. The source assumption is based on completing a carbon balance around natural gas combustion to determine the amount of CO emitted when combusting 1 MMscf of natural gas. The analysis

determined that the amount of CO emitted was 0.3 % (99.7% was destructed in the combustion process), therefore, the assumption of 99.5 % destruction is reasonable. During this review process and to provide operational flexibility and still maintain the MSOP status of the source, IDEM has assumed the CO reaction control efficiency to be 95.0% for heat treat ovens associated with each RX generator. This is equivalent to CO reaction emission rate of 0.779 lbs/hr each which is equivalent to 27.28 tons per year combined for eight (8) RX generators and associated heat treat ovens. This does not include natural gas CO combustion emissions from RX generators.

#### **State Rule Applicability - Ten (10) Integrated machines**

##### **326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)**

Pursuant to 326 IAC 6-3-1(b)(14), the ten (10) integrated machines are not subject to the requirements of 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) because they each have the potential to emit particulate matter less than 0.551 pounds per hour each.

#### **State Rule Applicability - Welding operation**

##### **326 IAC 6-3-1(b)(9)**

Pursuant to 326 IAC 6-3-1(b)(9), the one (1) welding operation, is exempt from the requirements of 326 IAC 6-3, because the potential to consume welding wire is less than six hundred twenty five (625) pounds per day.

#### **State Rule Applicability - sixty six (66) Cold Cleaners and one (1) open top vapor degreaser EUVD**

Pursuant to 326 IAC 8-3-1 (Organic Solvent Degreasing Operations), the sixty six (66) cold cleaner degreasers are each subject to the requirements of 326 IAC 8-3-2 (Cold Cleaner Operations) and 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control), since each of the units meet the definition of a cold cleaner degreaser under 326 IAC 1-2-18.5, utilize a organic solvent containing volatile organic compounds (VOCs) (as defined by 326 IAC 1-2-90), were constructed after the July 1, 1990, and do not have remote solvent reservoirs.

##### **326 IAC 8-3-2 Cold Cleaner Operation:**

Pursuant to 326 IAC 8-3-2, for each of the sixty six (66) cold cleaner degreasers, the owner or operator shall:

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

##### **326 IAC 8-3-5 Cold Cleaner Operation and control:**

(a) Pursuant 326 IAC 8-3-5(a), the owner or operator shall ensure that the following control equipment requirements are met for each of the sixty six (66) cold cleaner degreasers:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

- (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
  - (B) The solvent is agitated; or
  - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in 326 IAC 8-3-5(b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant 326 IAC 8-3-5(b), the owner or operator shall ensure that the following operating requirements are met for each of the sixty six (66) cold cleaner degreasers:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

**326 IAC 8-3-3 Open top vapor degreaser operation:**

Pursuant to 326 IAC 8-3-3, open top vapor degreaser, EUVD, installed in 2006 is subject to the requirements of 326 IAC 8-3-3 (Open top vapor degreaser operation), since unit meets the definition of a Open top vapor degreaser operation under 326 IAC 1-2-49.5, utilize a organic solvent containing volatile organic compounds (VOCs) (as defined by 326 IAC 1-2-90), were constructed after the July 1, 1990, and do not have remote solvent reservoirs.

- (1) equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone;
- (2) keep the cover closed at all times except when processing work loads through the degreaser;
- (3) minimize solvent carryout by:
  - (A) racking parts to allow complete drainage;
  - (B) moving parts in and out of the degreaser at less than 3.3 meters per minute (eleven (11) feet per minute);
  - (C) degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
  - (D) tipping out any pools of solvent on the cleaned parts before removal; and
  - (E) allowing parts to dry within the degreaser for at least fifteen (15) seconds or until visually dry;
- (4) not degrease porous or absorbent materials, such as cloth, leather, wood or rope;
- (5) not occupy more than half of the degreaser's open top area with the workload;
- (6) not load the degreaser such that the vapor level drops more than fifty percent (50%) of the vapor depth when the workload is removed;
- (7) never spray above the vapor level;
- (8) repair solvent leaks immediately, or shut down the degreaser;
- (9) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;
- (10) not use workplace fans near the degreaser opening;
- (11) not allow visually detectable water in the solvent exiting the water separator; and
- (12) provide a permanent, conspicuous label summarizing the operating requirements.

326 IAC 8-3-6 Open top vapor degreaser operation and control requirements:

The owner or operator of an open top vapor degreaser shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover that can be opened and closed easily without disturbing the vapor zone.
- (2) Equip the degreaser with the following switches:
  - (A) A condenser flow switch and thermostat which shuts off sump heat if condenser coolant stops circulating or becomes too warm.
  - (B) A spray safety switch which shuts off spray pump if the vapor level drops more than ten (10) centimeters (four (4) inches).
- (3) Equip the degreaser with a permanent, conspicuous label which lists the operating requirements

outlined in subsection (b).

- (4) Equip the degreaser with one (1) of the following control devices:
  - (A) A freeboard ratio of seventy-five hundredths (0.75) or greater and a powered cover if the degreaser opening is greater than one (1) square meter (ten and eight-tenths (10.8) square feet).
  - (B) A refrigerated chiller.
  - (C) An enclosed design in which the cover opens only when the article is actually entering or exiting the degreaser.
  - (D) A carbon adsorption system with ventilation which, with the cover open, achieves a ventilation rate of greater than or equal to fifteen (15) cubic meters per minute per square meter (fifty (50) cubic feet per minute per square foot) of air to vapor interface area and an average of less than twenty-five (25) parts per million of solvent is exhausted over one (1) complete adsorption cycle.
  - (E) Other systems of demonstrated equivalent or better control as those outlined in clauses (A) through (D). Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) The owner or operator of an open top vapor degreaser shall ensure that the following operating requirements are met:
  - (1) Keep the cover closed at all times except when processing workloads through the degreaser.
  - (2) Minimize solvent carryout emissions by:
    - (A) racking articles to allow complete drainage;
    - (B) moving articles in and out of the degreaser at less than three and three-tenths (3.3) meters per minute (eleven (11) feet per minute);
    - (C) degreasing the workload in the vapor zone at least thirty (30) seconds or until condensation ceases;
    - (D) tipping out any pools of solvent on the cleaned articles before removal; and
    - (E) allowing articles to dry within the degreaser for at least fifteen (15) seconds or until visually dry.
  - (3) Prohibit the entrance into the degreaser of porous or absorbent materials such as, but not limited to, cloth, leather, wood, or rope.
  - (4) Prohibit occupation of more than one-half (2) of the degreaser's open top area with the workload.
  - (5) Prohibit the loading of the degreaser to the point where the vapor level would drop more than ten (10) centimeters (four (4) inches) when the workload is removed.
  - (6) Prohibit solvent spraying above the vapor level.
  - (7) Repair solvent leaks immediately or shut down the degreaser if leaks cannot be repaired immediately.

- (8) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.
- (9) Prohibit the exhaust ventilation rate from exceeding twenty (20) cubic meters per minute per square meter (sixty-five (65) cubic feet per minute per square foot) of degreaser open area unless requirements.
- (10) Prohibit the use of workplace fans near the degreaser opening.
- (11) Prohibit visually detectable water in the solvent exiting the water separator.

### **Compliance Determination and Monitoring Requirements**

#### Compliance Determination and testing Requirements

(a) Paint Booths:

IDEM has determined that compliance with the VOC content limits in 326 IAC 8 can be established by using the data contained in the relevant MSDS and through calculations performed by the Permittee. The compliance determination and monitoring requirements for the paint booths applicable are as follows:

- (1) Compliance 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 copies of "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- (2) Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

No stack test is required for this facility because compliance with the MSOP limit for VOC can be determined by evaluating MSDSs and keeping records of the amount of VOC applied. The use of dry filters ensures compliance with 326 IAC 2-6.1-5 (MSOP) and 326 IAC 6-3 (Process Operations). The compliance monitoring requirements included in the permit should ensure compliance with these rules.

#### Recordkeeping and Reporting Requirements

The Permittee shall maintain records of coating and solvent usage, and VOC content, in order demonstrate compliance with the VOC emission limits established for Paint Booths EUP-1 and EUP-2.

(b) Shot Blasters Testing requirements:

The claims that source performed a mass balance study of all the twelve shot blasting operation and developed an emission factor for particulate matter based on assumptions made during the study and the assumption was made that PM10 is one tenth (1/10) of Particulate matter. Air-014-NPD (Approval and Validation of Alternate Emission Factors) and in order to verify the MSOP status of the source, IDEM has determined that testing before controls will be required to confirm the validity of the source specific emission rate, because without a valid test, IDEM does not have adequate information to conclude that the entire source actually operates in compliance with 326 IAC 2-6.1.

The Compliance determination, Monitoring, Preventive Maintenance Plan, Record keeping and Reporting conditions are not required for shot blasting operations because the worst case shotblaster unit will be tested to verify the site specific emission factors provided by the source before control.

Testing Requirements				
Emission Unit	Control Device/stack	Pollutant	Timeframe for Testing	Frequency of Testing
*Shotblaster- EUSB7	Dust Collectors	PM10	No later than 180 days after issuance of permit.	One (1) time to confirm EF

\* The wheelabrator shot blaster EUSB7 has the highest process and the media throughput, therefore it will be better representative of the particulate emissions.

- (c) There are no specific testing requirements for any of the other emission units at this source.

Compliance Monitoring Requirements

The Compliance monitoring requirements applicable to the emission facilities are as follows:

- (d) Following monitoring conditions are necessary because the two (2) surface coating operations, and heat treat units integral to RX generators, must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 326 IAC 2-6.1 (MSOP). Compliance monitoring requirements applies to units listed in the following table.

Emission Unit/Control	Operating Parameters	Frequency	Excursions and Exceedances
<b>Surface Coating</b>			
Surface Coating EUP-1 and EUP-2	Filter Check	Once per day	Response steps
Surface Coating EUP-1 and EUP-2	Overspray Observations	Once per week	Response steps
Surface Coating EUP-1 and EUP-2	Stack Exhaust Observations	Once per month	Response steps
<b>RX generators/Heat treat ovens</b>			
RX generators/Heat Treat ovens	Presence of flare	continuous	Response steps

**Conclusion and Recommendation**

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on January 8, 2010 and additional information was received in March 2010, July 2010, October 2010, and November 2010 and January 18, 2011.

The construction and operation of this source shall be subject to the conditions of the attached proposed New Source Construction, New Source Review and MSOP No. 157-28863-00007. The staff recommends to the Commissioner that this New Source Construction, New Source Review and MSOP be approved.

**IDEM Contact**

- (a) Questions regarding this proposed permit can be directed to Swarna Prabha at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5376 or toll free at 1-800-451-6027 extension 4-5376.

- (b) A copy of the findings is available on the Internet at: [www.in.gov/idem/ai/appfiles/idem-caats/](http://www.in.gov/idem/ai/appfiles/idem-caats/)
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov/](http://www.idem.in.gov/)

Appendix A Emission Summary

Company Name: Fairfield Manufacturing Company, Inc.  
 Address City IN Zip: 2309 Concord Road, Lafayette, Indiana 47903  
 EISOP Permit No.: 157-28863-00007  
 Reviewer: Swarna Prabha

Total emissions based on rated capacity of 8,760 hours/year.

Emission Unit	Potential Emissions (tons/yr)																					
	PM	PM10	NOx	SOx	VOC	CO	1,2 Butylene Oxide	Pb	Xylene	n-Butanol	Ethyl Benzene	MIBK	Nickel	Naphthalene	Toluene	Hexane	Ethane	HCl	Butane	Pentane	Total HAPs	
Large spray paint booth (EUP-1)				0.00	14.49	0.00	0.00	0.00														
Small spray paint booth (EUP-2)	10.78	10.78	0.00	0.00	3.18	0.00	0.00	0.00	0.45	0.26	0.12	0.52	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.43
12 Shot Blast Units	202.00	20.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Polishing and Bead Cleaning (EUBF2)	0.12	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Integrated Machines	2.41E-03	1.20E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.00	0.00	0.00	0.00	0.00
*8 RXN Generators	0.11	0.11	1.38	0.01	0.08	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15E-03	0.61	0.00	0.00	0.00	0.00	0.00	0.13
Heat Treat Operations	2.58	2.58	33.82	0.20	1.87	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.18E-05	0.02	0.00	0.00	0.00	0.00	0.00	0.61
2 Boilers EUB1 and EUB2	0.02	0.07	0.47	0.01	0.05	0.79	0.00	4.68E-06	0.00	0.00	0.00	0.00	0.00	0.00	3.18E-05	0.02	0.00	0.00	0.00	0.00	0.00	0.02
Emergency Generators	0.03	0.03	2.80	0.19	0.05	2.46	0.00	1.91E-04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vapor Degreaser	0.00	0.00	0.00	0.00	4.24	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Parts Washers	0.00	0.00	0.00	0.00	62.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas Combustion- non heat treat operation	2.89	2.89	31.91	0.69	2.23	26.88	0.00	negl.	0.00	0.00	0.00	0.00	0.00	0.00	1.12E-03	0.59	0.00	0.00	0.00	0.00	0.00	0.59
Welding and Cutting	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nickel Plating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66E-02	0.00	0.00	0.00	0.00	0.00	4.53E-04	0.00	0.00	0.00	1.71E-02
<b>Total</b>	<b>218.53</b>	<b>36.79</b>	<b>70.18</b>	<b>1.10</b>	<b>88.70</b>	<b>59.79</b>	<b>0.21</b>	<b>0.00</b>	<b>0.45</b>	<b>0.26</b>	<b>0.12</b>	<b>0.52</b>	<b>0.02</b>	<b>0.08</b>	<b>2.31E-03</b>	<b>1.25</b>	<b>0.04</b>	<b>4.53E-04</b>	<b>2.91E-02</b>	<b>0.04</b>	<b>0.04</b>	<b>3.02</b>

Emission Unit	Emissions after Control (tons/yr)																					
	PM	PM10	NOx	SOx	VOC	CO	1,2 Butylene Oxide	Pb	Xylene	n-Butanol	Ethyl Benzene	MIBK	Nickel	Naphthalene	Toluene	Hexane	Ethane	HCl	Butane	Pentane	Total HAPs	
Large spray paint booth (EUP-1)				0.00	14.49	0.00	0.00	0.00														
Small spray paint booth (EUP-2)	0.54	0.54	0.00	0.00	3.18	0.00	0.00	0.00	0.45	0.26	0.12	0.52	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.43
**12 Shot Blast Units	2.02	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Two (2) Polishing and Bead Cleaning (EUBF1)	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10 Integrated Machines	1.20E-04	6.02E-05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
**8 RXN Generators	0.11	0.11	1.38	0.01	0.08	1.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15E-03	0.61	0.00	0.00	0.00	0.00	0.00	0.13
Heat Treat Operations	2.58	2.58	33.82	0.20	1.87	28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.18E-05	0.02	0.00	0.00	0.00	0.00	0.00	0.61
2 Boilers EUB1 and EUB2	0.02	0.07	0.47	0.01	0.05	0.79	0.00	4.68E-06	negl.	0.00	0.00	0.00	0.00	0.00	3.18E-05	0.02	0.00	0.00	0.00	0.00	0.00	0.02
Emergency Generators	0.03	0.03	2.80	0.19	0.05	2.46	0.00	1.91E-04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vapor Degreaser	0.00	0.00	0.00	0.00	4.24	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
Parts Washers	0.00	0.00	0.00	0.00	62.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas Combustion- non heat treat operation	2.89	2.89	31.91	0.69	2.23	26.88	0.00	0.00E+00	0.00	0.00	0.00	0.00	0.00	0.00	1.12E-03	0.59	0.00	0.00	0.00	0.00	0.00	0.59
Welding and Cutting	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nickel Plating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66E-02	0.00	0.00	0.00	0.00	0.00	4.53E-04	0.00	0.00	0.00	1.71E-02
<b>Total</b>	<b>8.20</b>	<b>6.43</b>	<b>70.18</b>	<b>1.10</b>	<b>88.70</b>	<b>59.79</b>	<b>0.21</b>	<b>0.00</b>	<b>0.45</b>	<b>0.26</b>	<b>0.12</b>	<b>0.52</b>	<b>0.02</b>	<b>0.08</b>	<b>2.31E-03</b>	<b>1.24</b>	<b>0.04</b>	<b>4.53E-04</b>	<b>2.91E-02</b>	<b>0.04</b>	<b>0.04</b>	<b>3.01</b>

\*\*\* Each shot blaster is equipped with dust collector. The source claims the overall control efficiency to be 99%. There are no emission factors in AP-42, PM10 = PM2.5

**Appendix A: Emissions Calculations**

Paint used booths EUP-1 and EUP-2

Company Name: Fairfield Manufacturing Company, Inc.

Address City IN Zip: 2309 Concord Road, Lafayette, Indiana 47903

Permit No.: M157-28863-00007

Reviewer: Swarna Prabha

4275

Hours Operated in 2008

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Coating	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Volume % Water	Weight % Organics	Volume % Non-Volatiles (solids)	wt% Xylene	wt% n-Butanol	wt% Ethyl Benzene	wt% MIBK	wt% Naphthalene	wt% Toluene
646 Fast Cure Epoxy Coating	12.27	17.20%	0.00%	0.00%	17.20%	82.80%	5%		3%			
Red Oxide Epoxy Primer	14.02	18.83%	0.00%	0.00%	18.83%	81.17%	14%		2%			
646 Fast Cure Epoxy Part B	13.52	12.20%	0.00%	0.00%	12.20%	87.80%	2%		0.30%	10%		
646 Fast Cure Epoxy Part A	10.77	19.79%	0.00%	0.00%	19.79%	80.21%	17%		3%			
Recoatible Primer Part H	12.77	17.15%	0.00%	0.00%	17.15%	82.85%	9%		2%			
Polane Reducer-69	7.09	100%	0.00%	0.00%	100.00%	0.00%	52%		9%	24%		15%
Epoxy Primer 4-1	12.10	19.97%	0.00%	0.00%	19.97%	64.79%			0.18%	3.16%		
RAL 9005 Black	8.86	42.36%	0.00%	0.00%	42.36%	57.64%			0.12%		0.12%	
Uraguard Catalyst	9.05	20.86%	0.00%	0.00%	20.86%	79.14%			0.09%			8.80%
Epoxy Catalyst-Acetone	7.38	52.71%	0.00%	0.00%	52.71%	35.12%		13.10%				
Component B Urethane Catalyst	8.85	22.50%	0.00%	0.00%	22.50%	77.50%						
Gray Urethane Enamel	8.93	42.50%	0.00%	0.00%	42.50%	57.50%						
Semi-Black Urethane Enamel	11.18	25.50%	0.00%	0.00%	25.50%	74.50%					0.50%	
Buff Urethane Primer	12.94	28%	0.00%	0.00%	28.00%	72.00%					0.50%	
F066A0320A-White	14.35	22.17%	0.00%	0.00%	22.17%	77.83%	10.84%	8.73%	2.59%			
F65/66/160/161 Converter	10.70	27.13%	0.00%	0.00%	27.13%	72.88%	10.69%	0.40%		15.34%		
F066A0320A-Black	13.95	23.27%	0.00%	0.00%	23.27%	76.73%	10.19%	8.06%	2.37%			
Thinner	6.80	100%	0.00%	0.00%	100.00%	0.00%	33.40%	19.57%	8.35%	38.68%		

The booths EUP-1 and EUP-2 use identical paints. The source does not track the paint usage per booth. Paint Booths operated in 2008 for 4,275 hours.

**Appendix A: Emissions Calculations  
Paint Booths EUP-1 and EUP-2**

Company Name: Fairfield Manufacturing Company, Inc.  
 Address City IN Zip: 2309 Concord Road, Lafayette, Indiana 47903  
 Permit No.: M157-28863-00007  
 Reviewer: Swarna Prabha

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Hours Operated In 2008 4275

Coating	2008 Usage	Epoxy A&B	Catalyst	Urethane	Primer	Topcoat	Thinner
646 Fast Cure Epoxy Coating	84					84	
Red Oxide Epoxy Primer	26.49				26.49		
646 Fast Cure Epoxy Part B	145.69	145.69					
646 Fast Cure Epoxy Part A	12	12					
Recoatible Primer Part H	11				11		
Polane Reducer-69	34						34
Epoxy Primer 4-1	6				6		
RAL 9005 Black	8					8	
Uraguard Catalyst	2		2				
Epoxy Catalyst-Acetone	2		2				
Component B Urethane Catalyst	740		740				
Gray Urethane Enamel	630			630			
Semi-Black Urethane Enamel	1500			1500			
Buff Urethane Primer	1139				1139		
F066A0320A-White	152					152	
F65/66/160/161 Converter	168					168	
F066A0320A-Black	4					4	156
Thinner	156						
<b>*2008 Actual Usage (gal)</b>		<b>158</b>	<b>744</b>	<b>2,130</b>	<b>1,182</b>	<b>416</b>	<b>190</b>
<b>**Potential Usage (gallyr)</b>		<b>323</b>	<b>1,525</b>	<b>4,365</b>	<b>2,423</b>	<b>852</b>	<b>389</b>

Note:

\*The 2008 coating data was broken down by type of coating (Epoxy, Catalyst, Urethane, Primer, Topcoat, and Thinner). The total of each type of coating was determined and then scaled-up to determine potential usage of each type of coating. This total value is then applied to the worst-case coating of that type. For example, the potential catalyst usage (744 gallons) was applied to the worst-case catalyst (Compound B Urethane Catalyst) to determine the potential emissions from the catalyst.

The source claimed that both the paint booths operated 4275 hours per year combined, EUP-1=6500 and EUP-2 =2050  
 \*\* Potential Usage was determined by scaling up 2008 usage using 2008 actual hours of operation.

Coating	VOC (lb/gal)
Epoxy Part A	2.13
Epoxy Part B	1.65
<b>Total</b>	<b>3.78</b>
Urethane	3.80
Catalyst	1.99
<b>Total</b>	<b>5.79</b>

Each part is coated with either the Epoxy (Epoxy A & B) or the Urethane with Catalyst. The Urethane with Catalyst has a higher VOC content than the Epoxy. Therefore, the Epoxy usage was added to the Urethane and Catalyst in the ratios as above.

Urethane and Epoxy Ratio	
Urethane (gallon)	4,365
Catalyst (gallon)	1,525
<b>Total</b>	<b>5,889</b>
	74.11%
	25.89%
	83.65

Company Name: Fairfield Manufacturing Company, Inc.  
Address City IN Zip: 2309 Concord Road, Lafayette, Indiana 47903  
Permit No.: MI157-28863-00007  
Reviewer: Swarna Prabha

Metal gear Coating- Both Booths VOC and particulate Matter													
*Worst case coating	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Wt % Non-Volatiles (solids)	Paint usage both booths (gal/yr)	Paint used both Booths (gal/hour)	PTE of VOC of coating less water (lbs/gal)	Uncontrolled PTE both booths PM (lbs/hr)	Uncontrolled PTE PM both booths (ton/yr)	lb VOC/gal solids	**Transfer Efficiency
RAL 9005 Black	8.86	42.36%	0.0%	42.36%	0.0%	57.64%	852.40	0.0937	3.73	0.17	0.76	6.51	65%
Component B Urethane Catalyst	8.85	22.50%	0.0%	22.5%	0.0%	77.50%	1608.20	0.184	1.99	0.44	1.93	2.57	65%
Gray Urethane Enamel	8.93	42.50%	0.0%	42.5%	0.0%	57.50%	4604.10	0.526	3.80	0.94	4.14	6.60	65%
Buff Urethane Primer	12.94	28.00%	0.0%	28.0%	0.0%	72.00%	2423.10	0.277	3.62	0.90	3.95	5.03	65%
Thinner	6.90	100.00%	0.0%	100.0%	0.0%	0.00%	389.30	0.044	6.90	0.00	0.00	0.00	0%
Total PTE										10.78			

Controlled Particulate PTE at 90% filter efficiency = 0.54 tons/yr

*Worst case coating	Paint used both booths (gal/hr)	Actual Paint usage Booth EUP-1 (gal/hr)	**Actual Paint usage Booth EUP-1 (gal/day) U1	Actual Paint usage EUP-2 (gal/hr)	***Actual Paint usage EUP-2 (gal/day)	****Potential usage EUP-2 (gal/day)	PTE VOC EUP-1 (lbs/day)	PTE VOC EUP-2 (lbs/day)	EUP-1 PTE of VOC (tons/yr)	EUP-2 PTE of VOC (tons/yr)
RAL 9005 Black	0.097	0.08	1.91	0.018	0.14	0.42	7.19	1.58	1.31	0.29
Component B Urethane Catalyst	0.184	0.15	3.61	0.033	0.26	0.79	7.19	1.58	1.31	0.29
Gray Urethane Enamel	0.526	0.43	10.34	0.095	0.76	2.27	39.26	8.62	7.16	1.57
Buff Urethane Primer	0.277	0.23	5.44	0.050	0.40	1.19	19.72	4.33	3.60	0.79
Thinner	0.044	0.04	0.87	0.008	0.06	0.19	6.03	1.32	1.10	0.24
Total	0.92	0.20	22.19	0.20	1.62	4.87	79.40	17.43	14.49	3.18

The booths EUP-1 and EUP-2 use identical paints. The source does not track the paint usage per booth.

Booth EUP-1 operates 24 hrs per day and 6,500 hrs per year. This booth applies 82% of coating

Booth EUP-2 operated 8 hrs per day and 2050 hrs per year. This booth applies 18 % of coating

There is no emission factor for PM2.5 in AP-42, PM10 = PM2.5

\* Each part is coated with Epoxy A&B or the Urethane with Catalyst. The Urethane with Catalyst has a higher VOC than Epoxy. The emissions are calculated based on Urethane with Catalyst

\*\* Transfer efficiency was provided by the source similar to table leg paint operation.

\*\*\* Actual VOC based on 24 hrs per day for booth EUP-1 are same as potential VOC per day

\*\*\*\* Actual VOC based on 8 hrs per day for booth EUP-2

\*\*\*\*\* Potential usage is based on 24 hours of operation for Paint booth EUP-2

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

VOC lbs/ gal of Coating = (Density (lb/gal) \* Weight % Organics)

PTE VOC lbs/hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/hr) \* (24 hr/day)

PTE VOC lbs/Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/hr) \* (24 hr/day)

PTE VOC Tons/ Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

PTE PM Tons/ Year = (units/hour) \* (lbs/gal) \* (1-Weight % solids) \* (1-Transfer efficiency) \* (8760 hrs/yr) \* (1 ton/2000 lbs)

VOC lbs/ gal of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Company Name: Fairfield Manufacturing Company, Inc.  
 Address City IN Zip: 2309 Concord Road, Lafayette, Indiana 47903  
 Permit No.: M157-28863-00007  
 Reviewer: Swarna Prabha

Coating	Density (lb/gal)	wt% VOC	wt% Solids	wt% Xylene	wt% n-Butanol	wt% Ethyl Benzene	wt% MIBK	wt% Naphthalene	wt% Toluene
RAL 9005 Black Component B Urethane Catalyst	8.86	42.36%	57.64%			0.12%		0.12%	
Gray Urethane Enamel	8.85	22.50%	77.50%						
Buff Urethane Primer	12.94	28%	72.00%					0.50%	
Thinner	6.90	100%	0.00%	33.40%	19.57%	8.35%	38.68%		

Coating	Potential Usage (gal)	Transfer Efficiency	Potential Emissions (tons/yr)							Total HAPs	
			VOC	Solids	Xylene	n-Butanol	Ethyl Benzene	MIBK	Naphthalene		Toluene
RAL 9005 Black Component B Urethane Catalyst	852.4	65%	1.60	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Gray Urethane Enamel	1608.2	65%	1.60	1.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Buff Urethane Primer	4604.1	65%	8.74	4.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Thinner	2423.1	65%	4.39	3.95	0.00	0.00	0.00	0.00	0.00	0.00	0.08
<b>Total (tons)</b>	<b>389.3</b>	<b>65%</b>	<b>1.34</b>	<b>10.78</b>	<b>0.45</b>	<b>0.26</b>	<b>0.11</b>	<b>0.52</b>	<b>0.00</b>	<b>0.00</b>	<b>1.34</b>
											<b>1.43</b>

VOC/HAP Emissions (tons/yr) = Usage (gal) x Density (lb/gal) x wt% VOC/HAP x 1 ton/2000 lbs  
 PM/PM10 Emissions (tons/yr) = Usage (gal) x Density (lb/gal) x wt% solids x (1 - Transfer Efficiency)

Note: Potential Usage was determined by scaling up 2008 usage using 2008 actual hours of operation.  
 The worst-case Urethane, Catalyst, Primer, Topcoat, and Thinner were used to calculate the potential emissions.

**Appendix A: Emissions Calculations**  
 Particulates from Shotblasting Operation

**Company Name:** Fairfield Manufacturing Company, Inc.  
**Address City IN Zip:** 2309 Concord Road, Lafayette, Indiana 47903  
**MSOP No.:** M157-28863-00007  
**Reviewer:** Swarna Prabha

2008 PM collected	200	tons
2008 PM emitted	2	tons
2008 total Potential PM w/o control	202	tons
2008 Hours of Operation	8760	hours
Emission Factor (ton/hr) w/o control	0.023	ton/hr
Emission Factor (lbs/hr) w/o control	46.120	lbs/hr
Potential PM Emissions (tons/yr) w/o control	202	ton/yr
*Potential PM10 Emissions (tons/yr) w/o control	20.2	ton/yr
PM10 Emissions (tons/yr) with control	0.2	ton/yr

The potential to emit of PM for the shotblast units has been determined based on a site specific emission factor of 0.023 ton/hr, which was developed based on the total collected particulates in the baghouse collectors. The total collected was 202 collected over 8760 hours of operation. The potential to emit was based on this factor assuming 8760 hours of operation. The source believes this is the most accurate assessment of the potential to emit as it is directly related to the physical and operational design of the facility as a whole.

\* Source assumed estimated PM 10 emissions to be 1/10 of PM, therefore PM =0.1\* PM10

There are no emission factors in AP42 for PM2.5, PM10 = PM2.5

## Appendix A: Emissions Calculations Polishing and Bead Cleaning

**Company Name:** Fairfield Manufacturing Company, Inc.  
**Address City IN Zip:** 2309 Concord Road, Lafayette, Indiana 47903  
**Permit No.:** 157-28863-00007  
**Reviewer:** Swarna Prabha

Hours Operated in 2008 1720

Actual Bead Usage (lb/yr)	*Potential Bead Usage (lb/yr)	Control Efficiency	PM/PM10 Emission Factor (lb/1000 lb)	PM/PM10 Actual Emissions (tons/yr)	PM/PM10 PTE (tons/yr)	PM/PM10 PTE after control (tons/yr)
3400	17316.27907	95%	0.69	0.023	0.119	0.006

\* Potential Bead usage is based on 8760 hours/yr  
 Emissions (tons/yr) = Bead Usage (lb/yr) x EF (lb/1000 lb) x 1/(1 - Control Efficiency) x 1 ton/2,000 lbs

Note: Emission Factor is from AP-42, Table 13.2.6-1 for Abrasive Blasting.

There are no emission factor in AP42 for PM2.5, PM10 = PM2.5

Abrasive blasting of unspecified metal parts, controlled with fabric filter SCC 3-09-002-04



**FAIRFIELD MANUFACTURING CO. INC.**  
**RX GENERATORS**  
**EMISSION CALCULATIONS**

**Appendix A: Emissions Calculations**  
 Eight EURX (8) Reaction Generators

Company Name: Fairfield Manufacturing Company, Inc.  
 Address City IN Zip: 2309 Concord Road, Lafayette, Indiana 47903  
 Permit No.: 157-28863-00007  
 Reviewer: Swarna Prabha

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Natural gas Combustion Emissions from Eight RX generators

Emission Factors (lb/10 <sup>6</sup> scf)						
PM	PM10	NOx	SOx	VOC	CO	Pb
7.6	7.6	100	0.6	5.5	84	0.0005

*Emissions Unit	Installation Date	Heat Input (ft <sup>3</sup> /hr)	Potential Combustion Emissions (tons/yr)					
			PM	PM10	NOx	SOx	VOC	CO
EURX Generator 1	1965	395	0.013	0.013	0.173	0.001	0.010	0.145
EURX Generator 2	1966	395	0.013	0.013	0.173	0.001	0.010	0.145
EURX Generator 3	1966	395	0.013	0.013	0.173	0.001	0.010	0.145
EURX Generator 4	1970	395	0.013	0.013	0.173	0.001	0.010	0.145
EURX Generator 5	1976	395	0.013	0.013	0.173	0.001	0.010	0.145
EURX Generator 6	1978	395	0.013	0.013	0.173	0.001	0.010	0.145
EURX Generator 7	1981	395	0.013	0.013	0.173	0.001	0.010	0.145
EURX Generator 8	2008	395	0.013	0.013	0.173	0.001	0.010	0.145
<b>Total</b>		<b>3160</b>	<b>0.105</b>	<b>0.105</b>	<b>1.384</b>	<b>0.008</b>	<b>0.076</b>	<b>1.163</b>

**Methodology:**

\*Each generator capacity is with a reaction gas rate of 1,111 cubic feet of CO per hour.

Emissions (tons/yr) = Heat Input (ft<sup>3</sup>/yr) x EF (lb/10<sup>6</sup> ft<sup>3</sup>) x 8760 hrs/yr x 1 ton/2,000 lbs

Note: Emission Factors are from AP-42, Tables 1.4-1 and 1.4-2.

**Hazardous Air Pollutants (HAPs)**

	Pollutant					
	Benzene	Butane	Ethane	Formaldehyde	Hexane	Pentane
(Natural gas) Emission Factor in (lb/10 <sup>6</sup> scf)	2.10E-03	2.10E+00	3.00E+00	7.50E-02	1.80E+00	2.63E+00
Emissions						
Eight (8) EURX generators	2.91E-05	2.91E-02	4.15E-02	1.04E-03	2.49E-02	3.64E-02

Total Heat Input capacity eight generators = 8.71 MMBtu/hr

Total Haps= 1.33E-01

**Carburization Process**

CO Reaction Rate Emissions

%CO in RXN Gas

18%

CO Conversion Factor (lb/MMcf)

77871 lb /MMcf of gas of 100% CO

CO Emission Factor

14017 lb /MMcf of gas of 18% of CO

Emissions Unit	CO Reaction Gas Rate (ft <sup>3</sup> /hr)	Heat Input Capacity Reaction Gas (MMBtu/hr)	Potential Throughput (MMcf/yr)	Reaction CO Emissions (tons/yr)	*Reaction CO Emissions after Combustion (tons/yr)	**Reaction CO Emissions after Combustion (tons/yr) [326 IAC 2-8.1-5]
EURX Generator 1	1111	1.09	9.73	68.21	0.34	3.41
EURX Generator 2	1111	1.09	9.73	68.21	0.34	3.41
EURX Generator 3	1111	1.09	9.73	68.21	0.34	3.41
EURX Generator 4	1111	1.09	9.73	68.21	0.34	3.41
EURX Generator 5	1111	1.09	9.73	68.21	0.34	3.41
EURX Generator 6	1111	1.09	9.73	68.21	0.34	3.41
EURX Generator 7	1111	1.09	9.73	68.21	0.34	3.41
EURX Generator 8	1111	1.09	9.73	68.21	0.34	3.41
<b>Total</b>		<b>8.71</b>		<b>545.66</b>	<b>2.73</b>	<b>27.28</b>

CO Conversion Factor (lb/MMcf) = 1.25 g/L x 2.2 lb/1000g x 1 L/0.035315 ft<sup>3</sup> x 1,000,000 ft<sup>3</sup>/MMcf

CO Emission Factor = CO% in Reaction Gas x CO Conversion Factor (lb/MMcf)

Emissions (tons/yr) = RXN Gas Throughput (MMcf/yr) x CO Emission Factor (lb/MMcf) x 1 ton/2,000 lbs

CO Emissions After Combustion (tons/yr) = Potential Emissions (tons/yr) x (1 - Control Efficiency)

Emissions Unit	Potential Emissions (tons/yr)						
	PM	PM10	NOx	SOx	VOC	***CO	**CO
EURX Generator 1	1.31E-02	1.31E-02	1.73E-01	1.04E-03	9.52E-03	0.49	3.56
EURX Generator 2	1.31E-02	1.31E-02	1.73E-01	1.04E-03	9.52E-03	0.49	3.56
EURX Generator 3	1.31E-02	1.31E-02	1.73E-01	1.04E-03	9.52E-03	0.49	3.56
EURX Generator 4	1.31E-02	1.31E-02	1.73E-01	1.04E-03	9.52E-03	0.49	3.56
EURX Generator 5	1.31E-02	1.31E-02	1.73E-01	1.04E-03	9.52E-03	0.49	3.56
EURX Generator 6	1.31E-02	1.31E-02	1.73E-01	1.04E-03	9.52E-03	0.49	3.56
EURX Generator 7	1.31E-02	1.31E-02	1.73E-01	1.04E-03	9.52E-03	0.49	3.56
EURX Generator 8	1.31E-02	1.31E-02	1.73E-01	1.04E-03	9.52E-03	0.49	3.56
<b>Total</b>	<b>0.11</b>	<b>0.11</b>	<b>1.38</b>	<b>0.01</b>	<b>0.08</b>	<b>3.89</b>	<b>28.4</b>

**NOTES:**

\* Source claimed over all CO reaction control efficiency (Capture and destruction efficiency) for each of the RX generator = 99.5%. This is the basis of the CO PTE.

\*\*\*CO Potential Emissions = Reaction Emissions + Combustion Emissions

NOTE: RX generators do not function as emergency generators, they are used to treat metal parts in conjunction with the heat treat ovens. Heat treat units are listed under natural gas combustion.

Appendix A: Emissions Calculations  
 VOCs, Particulate  
 Natural Gas Combustion  
 MM BTU/HR <100

Company Name: Fairfield Manufacturing Company, Inc.  
 Address City IN Zip: US 52 South, PO box 7940, Lafayette, IN 47903  
 MSOP Permit Number: 157-28163-00007  
 Reviewer: Swans Prahlha

Emission Unit	Number of Units	Unit Heat Input Capacity MMBtu/hr	Combined Total Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	PM*		PM10*		SO2		NOx**		VOC		CO	
					tons/year	PM10*	tons/year	SO2	tons/year	NOx**	tons/year	VOC	tons/year	CO		
Heat Treat Units																
Roller Hardening Furnace #6	1	1.00	1.00	8.76	0.033	0.03	0.003	0.003	0.4	0.024	0.4	0.024	0.024	0.4	0.4	0.4
Batch Anneal Furnace	1	0.50	0.50	4.38	0.017	0.02	0.001	0.001	0.110	0.012	0.110	0.012	0.012	0.2	0.2	0.2
Program Draw #1 East and #2 west	2	1.00	2.00	17.52	0.067	0.07	0.006	0.006	0.876	0.048	0.876	0.048	0.048	0.7	0.7	0.7
Draw Furnaces #1 through #7	7	0.35	2.45	21.46	0.082	0.08	0.006	0.006	1.073	0.059	1.073	0.059	0.059	0.9	0.9	0.9
Home Carb. #1 West, #2 East	2	1.25	2.50	21.90	0.083	0.08	0.007	0.007	1.095	0.060	1.095	0.060	0.060	0.9	0.9	0.9
Super 38 Alkase Furnace #3	1	6.73	6.73	58.95	0.199	0.22	0.018	0.018	2.948	0.162	2.948	0.162	0.162	2.5	2.5	2.5
Gas Carburetor #5	1	5.97	5.97	52.30	0.189	0.199	0.016	0.016	2.615	0.144	2.615	0.144	0.144	2.2	2.2	2.2
Gas & Electric Carburetor #9	1	5.00	5.00	43.80	0.166	0.166	0.013	0.013	2.190	0.120	2.190	0.120	0.120	1.8	1.8	1.8
Gas Carburetor #3, #4	2	4.69	9.18	80.42	0.306	0.306	0.024	0.024	4.021	0.221	4.021	0.221	0.221	3.4	3.4	3.4
Gas & Electric Carburetor #8	1	3.06	3.06	26.61	0.102	0.102	0.008	0.008	1.340	0.074	1.340	0.074	0.074	1.1	1.1	1.1
Trimmer Furnace	1	2.35	2.35	20.59	0.078	0.078	0.006	0.006	1.023	0.057	1.023	0.057	0.057	0.9	0.9	0.9
Rx generators #6, #9, #10, #11, #12, #13, #14	7	1.54	10.78	94.43	0.359	0.359	0.028	0.028	4.722	0.260	4.722	0.260	0.260	4.0	4.0	4.0
Rx generators #7	1	1.13	1.13	9.90	0.038	0.038	0.003	0.003	0.495	0.027	0.495	0.027	0.027	0.4	0.4	0.4
Nitrogen Generator	1	0.37	0.37	3.24	0.012	0.012	0.001	0.001	0.162	0.009	0.162	0.009	0.009	0.1	0.1	0.1
Small Alkase Furnace #1	1	1.00	1.00	8.76	0.033	0.033	0.003	0.003	0.438	0.024	0.438	0.024	0.024	0.4	0.4	0.4
Super 38 Alkase Furnace #2, #4	3	5.10	15.30	134.03	0.509	0.509	0.040	0.040	6.701	0.369	6.701	0.369	0.369	5.6	5.6	5.6
Small Alkase Furnace #2	1	1.00	1.00	8.76	0.033	0.033	0.003	0.003	0.438	0.024	0.438	0.024	0.024	0.4	0.4	0.4
Auto Ventonox #2, #3, #4	3	1.00	3.00	26.28	0.100	0.100	0.008	0.008	1.314	0.072	1.314	0.072	0.072	1.1	1.1	1.1
Small Alkase Furnace #3	1	1.00	1.00	8.76	0.033	0.033	0.003	0.003	0.438	0.024	0.438	0.024	0.024	0.4	0.4	0.4
Lead Pot	1	1.15	1.15	10.07	0.038	0.038	0.003	0.003	0.504	0.028	0.504	0.028	0.028	0.4	0.4	0.4
L.T. Draw Furnace #1, #2, #3, #4	4	0.500	2.000	17.52	0.067	0.067	0.005	0.005	0.876	0.048	0.876	0.048	0.048	0.7	0.7	0.7
<b>Total</b>			<b>77.47</b>		<b>2.579</b>	<b>2.579</b>	<b>0.204</b>	<b>0.204</b>	<b>33.822</b>	<b>1.866</b>	<b>33.822</b>	<b>1.866</b>	<b>1.866</b>	<b>26.503</b>	<b>26.503</b>	<b>26.503</b>
Non Heat Treat Units																
Roof Mount Furnaces	13	3.25	42.250	370.11	1.406	1.406	0.111	0.111	18.506	1.018	18.506	1.018	1.018	15.5	15.5	15.5
Parts Washer	1	0.80	0.800	7.01	0.027	0.027	0.002	0.002	0.350	0.019	0.350	0.019	0.019	0.3	0.3	0.3
Repassrol Parts Washer	1	1.50	1.500	13.14	0.050	0.050	0.004	0.004	0.657	0.036	0.657	0.036	0.036	0.6	0.6	0.6
Continental Parts Washer	1	1.50	1.500	13.14	0.050	0.050	0.004	0.004	0.657	0.036	0.657	0.036	0.036	0.6	0.6	0.6
Infrared Tubular Heaters- Heat Treat	4	2.00	8.000	70.08	0.266	0.266	0.021	0.021	3.504	0.193	3.504	0.193	0.193	2.9	2.9	2.9
Infrared Tubular Heaters-Recycling	15	0.10	1.500	13.14	0.050	0.050	0.004	0.004	0.657	0.036	0.657	0.036	0.036	0.6	0.6	0.6
Heat Towers in Assy Bldg.	3	5.25	15.753	138.00	0.524	0.524	0.041	0.041	6.900	0.379	6.900	0.379	0.379	5.8	5.8	5.8
Resident Heaters in Chip Room.	2	0.20	0.400	3.50	0.013	0.013	0.001	0.001	0.175	0.010	0.175	0.010	0.010	0.1	0.1	0.1
Draw Furnaces	7	0.50	3.500	30.50	0.133	0.133	0.010	0.010	1.775	0.096	1.775	0.096	0.096	1.1	1.1	1.1
<b>Total</b>			<b>71.70</b>		<b>2.887</b>	<b>2.887</b>	<b>0.688</b>	<b>0.688</b>	<b>31.906</b>	<b>1.866</b>	<b>31.906</b>	<b>1.866</b>	<b>1.866</b>	<b>15.5</b>	<b>15.5</b>	<b>15.5</b>
<b>Totals</b>					<b>5.47</b>	<b>5.47</b>	<b>0.89</b>	<b>0.89</b>	<b>65.73</b>	<b>4.09</b>	<b>65.73</b>	<b>4.09</b>	<b>4.09</b>	<b>55.38</b>	<b>55.38</b>	<b>55.38</b>

Appendix A: Emissions Calculations  
HAPs  
Natural Gas Combustion  
MM BTU/HR <100

Company Name: Fairfield Manufacturing Company, Inc.  
Address City IN Zip: US 52 South, PO box 7600, Lafayette, IN 47903  
MSOP Permit Number: 157-28863-00007  
Reviewer: Swarna Prabha

Emission Unit	Number of Units	Unit Heat Input Capacity MMBtu/HR	Total Heat Input Capacity MMBtu/HR	Potential Emission						
				Benzene tons/yr	Formaldehyde tons/yr	Hexane tons/yr	Toluene tons/yr	Cr tons/yr	Ni tons/yr	
Roller Handing Furnace #6	1	1.00	8.76	3.9E-06	3.9E-04	3.9E-03	7.4E-06	6.1E-06	3.1E-06	9.2E-06
Batch Anneal Furnace	1	0.50	4.38	4.6E-06	1.6E-04	3.9E-03	7.4E-06	6.1E-06	3.1E-06	4.6E-06
Program Draw #1 East and #2 West	2	1.00	17.52	1.8E-05	6.0E-04	1.6E-02	3.0E-05	9.6E-06	1.2E-05	1.8E-05
Draw Furnace #1 Through #7	7	0.35	2.45	2.3E-05	8.0E-04	1.9E-02	3.6E-05	1.2E-05	1.5E-05	2.3E-05
Homo Carb #1 West, #2 East	2	1.25	21.90	2.3E-05	8.2E-04	2.0E-02	3.7E-05	1.2E-05	1.5E-05	2.3E-05
Super 36 Alkase Furnace #3	1	6.73	58.95	6.2E-05	2.2E-03	5.9E-02	1.0E-04	3.2E-05	4.1E-05	6.2E-05
Gas Carbuzer #5	1	5.97	52.30	5.9E-05	2.0E-03	4.7E-02	8.9E-05	2.9E-05	3.7E-05	5.9E-05
Gas & Electric Carbuzer #9	1	5.00	43.80	4.6E-05	1.6E-03	3.9E-02	7.4E-05	2.4E-05	3.1E-05	4.6E-05
Gas Carbuzer #3, #4	2	4.59	80.42	8.4E-05	3.0E-03	7.2E-02	1.4E-04	4.4E-05	5.6E-05	8.4E-05
Gas & Electric Carbuzer #8	1	3.06	26.81	2.8E-05	1.0E-03	2.4E-02	4.6E-05	1.5E-05	1.9E-05	2.8E-05
Trimler Furnace	1	2.35	20.59	2.2E-05	7.7E-04	1.9E-02	3.5E-05	1.1E-05	1.4E-05	2.2E-05
TX Generators #5, #10, #11, #12, #13, #14	4	5.4	10.78	9.6E-05	3.2E-03	8.0E-02	1.6E-04	5.2E-05	6.6E-05	9.6E-05
TX Generator #7	1	1.13	9.90	1.0E-05	3.7E-04	8.8E-03	1.7E-05	5.4E-06	6.9E-06	1.0E-05
HAPs for TX Generators	4	1.13	1.23	1.1E-04	3.9E-03	9.4E-02	1.8E-04	5.7E-05	7.3E-05	1.1E-04
Nitrogen Generator	1	0.37	3.24	3.4E-06	1.2E-04	2.9E-03	5.9E-06	1.8E-06	2.3E-06	3.4E-06
Small Alkase Furnace #1	1	1.00	8.76	9.2E-06	3.3E-04	7.9E-03	1.5E-05	4.8E-06	6.1E-06	9.2E-06
Super 36 Alkase Furnaces #1, #2, #4	3	5.10	19.40	1.4E-04	5.0E-03	1.2E-01	2.3E-04	7.4E-05	9.4E-05	1.4E-04
Small Alkase Furnace #2	1	1.00	8.76	9.2E-06	3.3E-04	7.9E-03	1.5E-05	4.8E-06	6.1E-06	9.2E-06
Auto Hardeners #2, #4	3	1.00	26.28	2.8E-05	9.9E-04	2.4E-02	4.5E-05	1.4E-05	1.8E-05	2.8E-05
Small Alkase Furnace #3	1	1.00	8.76	9.2E-06	3.3E-04	7.9E-03	1.5E-05	4.8E-06	6.1E-06	9.2E-06
Lead Pol.	1	1.15	10.07	1.1E-05	3.8E-04	9.1E-03	1.7E-05	5.8E-06	7.1E-06	1.1E-05
LT Draw Furnaces #1, #2, #3, #4	4	0.50	17.52	1.8E-05	6.6E-04	1.6E-02	3.0E-05	9.6E-06	1.2E-05	1.8E-05
			77.47	7.1E-04	4.2E-03	8.1E-01	1.2E-03	3.7E-04	4.8E-04	7.1E-04
Non Heat Treat Units										
Roof Mount Furnaces	19	3.25	42.250	3.9E-04	1.4E-02	3.3E-01	6.3E-04	2.0E-04	2.6E-04	3.9E-04
Print Washer	1	0.80	0.800	7.4E-06	2.6E-04	6.9E-03	1.2E-05	3.9E-06	4.9E-06	7.4E-06
Renschoff Print Washer	1	1.50	1.500	1.3E-05	4.9E-04	1.2E-02	2.2E-05	7.2E-06	9.2E-06	1.4E-05
Centrifugal Parts Washer	1	1.80	1.500	1.3E-05	4.9E-04	1.2E-02	2.2E-05	7.2E-06	9.2E-06	1.4E-05
Infrared Tubular Heaters-heat treat	4	2.00	8.000	7.4E-05	2.6E-03	6.9E-02	1.2E-04	3.9E-05	4.9E-05	7.4E-05
Infrared Tubular Heaters-Recovery	15	0.10	1.500	1.3E-05	4.9E-04	1.2E-02	2.2E-05	7.2E-06	9.2E-06	1.4E-05
Heat Towers in Assy Bldg.	3	5.25	15.753	1.4E-04	5.2E-03	1.2E-01	2.3E-04	7.6E-05	9.7E-05	1.4E-04
Radiant Heaters in Chip Room	2	0.20	0.400	3.7E-06	1.3E-04	3.2E-03	6.0E-06	1.9E-06	2.6E-06	3.7E-06
Draw Furnaces	7	0.50	3.500	3.2E-05	1.1E-03	2.8E-02	5.2E-05	1.7E-05	2.1E-05	3.2E-05
Total			75.203	6.9E-04	2.5E-02	5.9E-01	1.1E-03	3.6E-04	4.6E-04	6.9E-04

1. \*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.  
 2. There is no PM2.5 Emission Factor in AP-42. PM10 = PM2.5  
 3. \*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32  
 4. 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**  
 Potential Throughput (MMCF) = Combined Total Heat Input Capacity (MMBtu/hr) \* 6.760 hrs/yr \* 1 MMCF/1,000 MMBtu  
 Emission (tons/yr) = Throughput (MMCF/yr) \* Emission Factor (lb/MMCF) / 2,000 lb/ton  
 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)  
 All emission factors are based on normal firing.  
 MMBtu = 1,000,000 Btu, MMCF = 1,000,000 Cubic Feet of Gas  
 Abbreviations  
 PM = Particulate Matter  
 PM10 = Particulate Matter (<10 um)  
 SO2 = Sulfur Dioxide  
 NOx = Nitrous Oxides  
 VOC = Volatile Organic Compounds  
 CO = Carbon Monoxide  
 Cr = Chromium  
 Ni = Nickel  
 Cd = Cadmium

Company Name: Fairfield Manufacturing Company, Inc.  
 Address City IN Zip: US 52 South, PO box 7940, Latayette, IN 47903  
 FESOP Permit Number: 157-28863-00007  
 Reviewer: Swarna Prabha

Potential Throughput  
 MMBt/yr

EUB1	8.0
EUB2	10.7
Total	18.7

EUB1	0.918
EUB2	1.2
Total	2.14

Two (2) boilers, identified as EUB1 and EUB2, combined maximum throughput of 5.14 MMBt/yr.

	Pollutant						
	PM*	PM10*	PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	50 **see below	5.5	84
Potential Emission in tons/yr	0.02	0.07	0.07	0.01	0.47	0.05	0.79

\*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

HAPs - Organics				
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00
Potential Emission in tons/yr	1.97E-05	1.12E-05	7.02E-04	1.69E-02
				Toluene 3.4E-03
				3.18E-05

HAPs - Metals				
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Nickel 2.1E-03
Potential Emission in tons/yr	4.68E-06	1.03E-05	1.31E-05	3.56E-06
				Manganese 3.8E-04
				Total 1.77E-02

**Methodology**

All emission factors are based on normal firing.  
 MMBtu = 1,000,000 Btu  
 MMCF = 1,000,000 Cubic Feet of Gas  
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03  
 Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu  
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Additional HAPs emission factors are available in AP-42, Chapter 1.4.  
 The five highest organic and metal HAPs emission factors are provided above.

## Appendix A: Emissions Calculations Sixty (60) Parts Washers

**Company Name:** Fairfield Manufacturing Company, Inc.  
**Address City IN Zip:** 2309 Concord Road, Lafayette, Indiana 47903  
**Permit No.:** 157-28863-00007  
**Reviewer:** Swarna Prabha

Potential usage Material (gal/yr)	Density (lb/gal)	wt% VOC	Potential Emissions	
			VOC (lb/day)	VOC (ton/yr)
19,090	6.55	100%	342.57	62.52

Normal operating hours = 6,815 hrs/yr  
 The potential purchased degreasing solution based on 8,760 hours of operation = 19,090 gal/yr  
 $\text{Emissions (lbs/yr)} = \text{Potential usage material (gal/yr)} \times \text{Density (lb/gal)} \times \text{wt\% VOC}$   
 $\text{Emissions (tons/yr)} = \text{Emissions (lbs/yr)} \times 1 \text{ ton}/2,000 \text{ lbs}$

**Appendix A: Emissions Calculations  
One (1) Open Top Vapor Degreaser - EUVD**

Company Name: Fairfield Manufacturing Company, Inc.  
 Address City IN Zip: 2309 Concord Road, Lafayette, Indiana 47903  
 Permit No.: 157-28863-00007  
 Reviewer: Swarna Prabha

* Material (gal/yr)	Density (lb/gal)	wt% VOC	wt% 1,2 Butylene Oxide	Potential Emissions				
				VOC (lb/yr)	VOC (lb/day)	VOC (ton/yr)	1,2 Butylene Oxide (ton/yr)	
770	11.02	100%	5%	8482.26	23.24	4.24	424.11	0.21

Note:\* Potential usage was determined by scaling up 2008 usage using 2008 actual

**Methodology :**

Emissions (lbs/yr) = Gallons Evaporated x Density (lb/gal) x wt% VOC  
 Emissions (tons/yr) = Emissions (lbs/yr) x 1 ton/2,000 lbs

Attachment A: Emissions Calculations  
Natural gas and Diesel fired Generators

Company Name: Fairfield Manufacturing Company, Inc.  
Address City IN Zip: 2309 Concord Road, Lafayette, Indiana 47903  
Permit No.: 157-28863-00007  
Reviewer: Swarna Prabha

Fuel Type	Diesel Fuel Sulfur content		Emission Factors (lb/MMBtu)					
	PM	PM10	NOx	SOx	VOC	CO	Pb	
Natural Gas	0.010	0.010	2.270	0.001	0.030	3.510		
Diesel Fuel	0.062	0.070	3.200	0.505	0.090	0.850	0.001	

0.5

Emission Unit ID	Emission Unit	Capacity (gal/hr)	MMBTU/hr	Potential Emissions (tons/yr)						
				PM	PM10	NOx	SOx	VOC	Pb	
426hp	426 hp NG Fired Generator		1.08	0.003	0.003	0.615	0.0002	0.008	0.951	0.00000
EG1-EG7	6 NG Fired Generators		1.3464	0.003	0.003	0.764	0.0002	0.010	1.181	0.00000
EG8	125 hp Diesel Compressor	11	1.529	0.024	0.027	1.223	0.193	0.034	0.325	0.00019
	<b>Total</b>		<b>3.96</b>	<b>0.03</b>	<b>0.032</b>	<b>2.60</b>	<b>0.19</b>	<b>0.05</b>	<b>2.46</b>	<b>0.00</b>

Hazardous Air Pollutants (HAPs)

(Natural gas) Emission Factor in lb/MMBtu	(diesel Fuel) Emission Factor in lb/MMBtu	Pollutant					
		Benzene	Toluene	Xylene	Formaldehyde	Acetaldehyde	Acrolein
1.58E-03	5.58E-04	1.95E-04	1.95E-04	2.05E-02	2.79E-03	2.63E-03	
7.76E-04	2.81E-04	1.93E-04	7.89E-03	2.92E-04	7.88E-06		
4.28E-04	1.51E-04	5.28E-05	5.56E-03	7.56E-04	7.13E-04		
2.61E-04	9.46E-05	6.50E-05	2.66E-03	8.48E-05	2.65E-06		
6.04E-04	3.31E-06	1.30E-06	6.27E-03	1.35E-04	2.26E-05		

**Total HAPs** 1.29E-03 2.49E-04 1.19E-04 1.45E-02 9.76E-04 7.38E-04 1.79E-02

Potential Emission of Total HAPs (tons/yr) 1.79E-02

Diesel Compressor Capacity (MMBTU/hr) = Capacity (gal/hr) x Diesel Fuel Heating Content (139,000 gal/Btu) x 1 MMBtu/10<sup>6</sup> Btu

Emissions (tons/yr) = Heat Input Capacity (MMBTU/hr) x EF (lb/MMBtu) x 500 hr/yr \* 1 ton/2,000 lbs

Note: Emission factors are from AP-42, Tables 3.4-1 and 3.4-2 (diesel) and 3.2-3 (natural gas, 4-stroke engine).  
Potential Emissions are based on 500 hrs/yr because units are used for emergency purposes only.  
\*\*\*PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)



**FAIRFIELD MANUFACTURING CO. INC.**  
**NICKEL PLATING**  
**EMISSION CALCULATIONS**

Material	2008 Usage (gal/yr)	Density (lb/gal)	wt% VOC	% Nickel Compounds	wt% HCL	wt% NaOH	PTE Ni tons/yr	HCL tons/yr
Nickel Acid	4	10.72	0%	15%			3.22E-03	
Process No. 3 Etching & Desmutting	4	9.45	0%					
Electrocleaning	4	8.75	0%			2.50%		
No. 2 Etching	4	9.05	0%		2.50%			4.53E-04
Nickel (High Speed)	37	9.68	0%	7.50%			1.34E-02	
							1.66E-02	4.53E-04

Note: There are no VOCs associated with the materials. Therefore there are no VOC emissions associated with the Plating Operations.

The process involves dipping parts into tanks; therefore, there are no PM/PM10 Emissions associated with the operations.



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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

*Thomas W. Easterly*  
**Commissioner**

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

## **SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED**

**TO:** Randy Stapp  
Fairfield Manufacturing  
US 52 S, PO Box 7940  
Lafayette, IN 47903

**DATE:** March 11, 2011

**FROM:** Matt Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

**SUBJECT:** Final Decision  
MSOP  
157-28863-00007

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
Mark Gustus, Responsible Official  
Holly Argiris, Consultant  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 11/30/07



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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**Governor**

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**Commissioner**

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[www.idem.IN.gov](http://www.idem.IN.gov)

March 11, 2011

TO: Tippecanoe County Public Library

From: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

**Applicant Name: Fairfield Manufacturing**  
**Permit Number: 157-28863-00007**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures  
Final Library.dot 11/30/07

# Mail Code 61-53

IDEM Staff	DPABST 3/11/2011 Fairfield Manufacturing Co., Inc. 157-28863-00007 (Final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING	
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Randy Stapp Fairfield Manufacturing Co., Inc. US 52 S, PO Box 7940 Lafayette IN 47903 (Source CAATS) (CONFIRM DELIVERY)										
2		Mark Gustus Ops Mgr Fairfield Manufacturing Co., Inc. US 52 S, PO Box 7940 Lafayette IN 47903 (RO CAATS)										
3		Mr. Charles L. Berger Berger & Berger, Attorneys at Law 313 Main Street Evansville IN 47700 (Affected Party)										
4		Tippecanoe County Commissioners 20 N 3rd St, County Office Building Lafayette IN 47901 (Local Official)										
5		Tippecanoe County Health Department 20 N. 3rd St Lafayette IN 47901-1211 (Health Department)										
6		Tippecanoe County Public Library 627 South Street Lafayette IN 47901-1470 (Library)										
7		Ms. Dorothy Whicker 2700 Bonny Lane Lafayette IN 47904 (Affected Party)										
8		Ms. Geneva Werner 3212 Longlois Drive Lafayette IN 47904-1718 (Affected Party)										
9		Mrs. Phyllis Owens 3600 Cypress Lane Lafayette IN 47905 (Affected Party)										
10		Mr. Jerry White 1901 King Eider Ct West Lafayette IN 47906 (Affected Party)										
11		Ms. Rose Filley 5839 Lookout Drive West Lafayette IN 47906 (Affected Party)										
12		Mr. William Cramer 128 Seminole Drive West Lafayette IN 47906 (Affected Party)										
13		Mr. Robert Kelley 2555 S 30th Street Lafayette IN 44909 (Affected Party)										
14		Holly Argiris Environmental Resources Management (ERM) 11350 N. Meridian, Ste 320 Carmel IN 46032 (Consultant)										
15		Tippecanoe Mall 2415 Sagamore Parkway South Lafayette IN 47905 (Affected Party)										

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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# Mail Code 61-53

IDEM Staff	DPABST 3/11/2011 Fairfield Manufacturing Co., Inc. 157-28863-00007 (Final)		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handling Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee
											Remarks
1		Rea Magnet Wire Company 2800 Concord Road Lafayette IN 47909 (Affected Party)									
2		Ice Cream Specialties, Co. 2600 Concord Road Lafayette IN 47909 (Affected Party)									
3		Joe Knowles Duke Energy 1000 E. Main Street Plainfield IN 46168 (Affected Party)									
4		James Calloway Calloway Properties PO Box 6009 Lafayette IN 47903 (Affected Party)									
5		Ed Gobe Thoroughbred, Inc. 2401 Concord Road Lafayette IN 47903 (Affected Party)									
6		Dayne Tate Norfolk Southern Property Management 3950 Priority Way S. Drive #112 Indianapolis IN 46240 (Affected Party)									
7		Woodruff Corporation 400 Industrial Parkway Richmond IN 47374 (Affected Party)									
8		Mark Zeltwanger 26545 CR 52 Nappanee IN 46550 (Affected Party)									
9											
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